



GLASGOW CORPORATION.

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REPORT

OF THE

MEDICAL RESEARCH  
COMMITTEE  
GLASGOW

9352

MEDICAL OFFICER OF HEALTH.

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CITY OF GLASGOW.

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1913.

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# CONTENTS.

SECTION I.	PAGE
INTRODUCTION, - - - - -	1
SUMMARY OF VITAL STATISTICS FOR YEAR, - - - - -	1
POPULATION, - - - - -	2
UNOCCUPIED HOUSES, - - - - -	3
LININGS GRANTED BY DEAN OF GUILD COURT, - - - - -	4
ACREAGE, - - - - -	4
TEMPERATURE AND RAINFALL, - - - - -	4
MARRIAGES—	
<i>Marriage-rates per 1,000 living, - - - - -</i>	4
BIRTHS—	
<i>Births and Birth-rates, - - - - -</i>	5
DEATHS—	
<i>All Causes, - - - - -</i>	5
<i>Quarterly Death-rates, - - - - -</i>	6
<i>Death-rates in Wards, - - - - -</i>	7
<i>Death-rates from "All" and "Specified" Causes, - - - - -</i>	7
<i>Age-Distribution of Deaths, - - - - -</i>	7
<i>Deaths occurring in Institutions, - - - - -</i>	7
<i>Transfer Deaths, - - - - -</i>	9
<i>Certification of Deaths, - - - - -</i>	9
<i>Certification of Deaths in Scotland, - - - - -</i>	9
INFANTILE MORTALITY—	
<i>Death-rates of Legitimate and Illegitimate Infants, - - - - -</i>	13
<i>Death-rates in Wards, - - - - -</i>	15
<i>Causes of Death among Male Infants, - - - - -</i>	15
<i>Do. Female Infants, - - - - -</i>	15
<i>Diseases of the Immaturity Group, - - - - -</i>	16
<i>Deaths in the First Four Weeks, - - - - -</i>	16
<i>Pre-natal Conditions, - - - - -</i>	17
<i>Sex-ratio of Still-Births, - - - - -</i>	17
<i>Health of Mothers, - - - - -</i>	17
<i>Previous Miscarriages, - - - - -</i>	17
<i>Do. Still-Births, - - - - -</i>	17
<i>Suggestions for further action, - - - - -</i>	18
<i>Notification of Births Act, - - - - -</i>	18
<i>Nature of Attendance at Birth, - - - - -</i>	19
<i>Still-Births, - - - - -</i>	19
<i>Infant Visitation, - - - - -</i>	19
<i>Glasgow Infant Health Visitors' Association, - - - - -</i>	22
<i>Industrial Occupation of Women, - - - - -</i>	24
<i>Children Act, 1908, - - - - -</i>	24
<i>Infant Consultations, - - - - -</i>	25
<i>Ophthalmia Neonatorum, - - - - -</i>	26
<i>Extension of Definition, - - - - -</i>	26
<i>Case rate per 1,000 Births, - - - - -</i>	27
<i>Association with Syphilis, - - - - -</i>	27
<i>Results of Treatment, - - - - -</i>	27
<i>Treatment of Mothers, - - - - -</i>	28
TREATMENT OF VENEREAL DISEASE—	
<i>Relation of Public Health Authority, - - - - -</i>	28
<i>Treatment of Children, - - - - -</i>	29
<i>Increase of Venereal Disease in Young Children, - - - - -</i>	29
<i>Present Position of Health Committee, - - - - -</i>	29
<i>Accommodation at Baird Street Reception House, - - - - -</i>	30

	PAGE
<i>Prevalence of Venereal Disease, - - - - -</i>	30
<i>Treatment of Cases, - - - - -</i>	31
<i>Wassermann Reaction, - - - - -</i>	32
<i>Circular to Medical Practitioners, - - - - -</i>	32
<i>Laboratory Form, - - - - -</i>	33
<i>Insufficiency of Blood sent for Test, - - - - -</i>	34
<i>Analyses of Wassermann Tests, - - - - -</i>	35
<i>Wassermann Reaction in the Serum of Children of the Poorer Districts, -</i>	35
SECTION II.	
INFECTIOUS DISEASES—	
<i>Case-rates for certain Zymotic Diseases, - - - - -</i>	38
<i>Notifications in Months, with Cost, - - - - -</i>	39
<i>Principal Zymotic Diseases, - - - - -</i>	40
<i>Excessive Fatality from Non-notifiable Diseases, - - - - -</i>	41
<i>Analysis of Death-rates in Wards with excessive Rates, - - - - -</i>	41
SMALLPOX—	
<i>Contacts, - - - - -</i>	41
<i>Cost of Vaccination, - - - - -</i>	41
<i>Vaccination (Scotland) Act, 1907, - - - - -</i>	41
<i>Primary Vaccination, - - - - -</i>	42
DIPHTHERIA AND MEMBRANOUS CROUP—	
<i>Cases and Case-rates, - - - - -</i>	42
<i>Deaths and Death-rates, - - - - -</i>	43
<i>Case-rates in Old and Added Areas at various Ages, - - - - -</i>	44
<i>Case-mortality at Home and in Hospital, - - - - -</i>	44
<i>Seasonal Prevalence, - - - - -</i>	45
<i>Effect of School Holidays on Case-incidence, - - - - -</i>	45
<i>Age- and Sex-Distribution of Cases and Deaths, - - - - -</i>	45
<i>Relation of Croup to Diphtheria, - - - - -</i>	46
<i>The Recent Prevalence of Diphtheria in Scotland (Appendix), - - - - -</i>	47
<i>Diphtheria associated with a Milk-Supply, - - - - -</i>	47
ENTERIC FEVER—	
<i>Cases and Case-rates, - - - - -</i>	49
<i>Deaths and Death-rates, - - - - -</i>	49
<i>Unrecognised Cases, - - - - -</i>	50
<i>Enteric Fever simulating Pneumonia, - - - - -</i>	51
<i>Do. do. Intestinal Catarrh, - - - - -</i>	51
<i>Case-mortality at Home and in Hospital, - - - - -</i>	52
<i>Number of Privies in City, - - - - -</i>	52
CEREBRO-SPINAL FEVER—	
<i>Cases and Case-rates, - - - - -</i>	53
<i>Deaths and Death-rates, - - - - -</i>	53
TYPHUS FEVER—	
<i>Cases and Deaths, - - - - -</i>	53
<i>Reports on Occurrence of Cases.—Govan and Kinning Park, - - - - -</i>	53
<i>Do. do. —Calton and Mile-end, - - - - -</i>	54
<i>Do. do. —Anderston, - - - - -</i>	56
SCARLET FEVER—	
<i>Cases and Case-rates, - - - - -</i>	58
<i>Deaths and Death-rates, - - - - -</i>	58
<i>Scarlet Fever in Old and Added Areas at various Ages, - - - - -</i>	59
<i>Case-mortality at Home and in Hospital, - - - - -</i>	60
<i>Return Cases, - - - - -</i>	60
<i>Secondary Cases, - - - - -</i>	61



	PAGE
<i>Effect of School Holidays on Case-incidence,</i>	61
<i>Scarlet Fever associated with a Milk-Supply,</i>	61
<i>Do. Woodside.</i>	62
MEASLES—	
<i>Deaths and Death-rates,</i>	62
WHOOPIING-COUGH—	
<i>Deaths and Death-rates,</i>	63
DIARRHOEAL DISEASES—	
<i>Deaths and Death-rates,</i>	64
<i>Autumnal prevalence,</i>	65
<i>Danger of Flies,</i>	65
<i>Leaflet to Householders,</i>	65
<i>Do. Stable-Keepers.</i>	66
TUBERCULOUS DISEASES—	
<i>Phthisis—</i>	
<i>Deaths and Death-rates,</i>	66
<i>Ward Case and Death-rates,</i>	67
<i>Dispensaries,</i>	68
<i>Hospitals,</i>	68
<i>Cases registered since Introduction of Compulsory Notification,</i>	69
<i>Cases registered during 1913,</i>	69
<i>Source of Notified Cases,</i>	69
<i>Source of Information in Cases not notified,</i>	70
<i>Deaths among Registered Cases,</i>	70
<i>Place of Residence at time of Registration.</i>	70
<i>Public and Private Notifications,</i>	70
<i>Age-distribution of cases registered,</i>	70
<i>Housing accommodation of Patients,</i>	71
<i>Institutional treatment,</i>	71
<i>National Insurance,</i>	71
<i>Attendances at Dispensaries,</i>	72
<i>Home Visitation by Nurses,</i>	73
<i>Other Tuberculous Diseases—</i>	
<i>Deaths and Death-rates,</i>	73
<i>Tubercle in Milk,</i>	74
RESPIRATORY DISEASES—	
<i>Deaths and Death-rates,</i>	75
PNEUMONIA—	
<i>Deaths and Death-rates,</i>	76
<i>Infectious ( ? Septic ) Pneumonia,</i>	77
ERYSIPELAS—	
<i>Death-rates since 1891,</i>	78
PUERPERAL FEVER—	
<i>Cases, Case-rate, Case-mortality, and Death-rate,</i>	78
<i>Incidence in relation to Nature of Attendance at Birth,</i>	79
CERTIFICATION OF DEATHS,	80
RABIES,	80
GLANDERS,	81
ANTHRAX,	81
BACTERIOLOGICAL LABORATORY—	
<i>Examination of Morbid Products,</i>	81
<i>Examination of Diphtheria Contacts,</i>	83
<i>Tuberculosis Dispensaries,</i>	83
<i>Ophthalmia Neonatorum,</i>	84

	PAGE
<i>Wassermann Tests,</i> - - - - -	84
<i>Investigations,</i> - - - - -	85
<i>Examination of Rats for Plague,</i> - - - - -	86
<i>Examination of Loch Katrine Water,</i> - - - - -	87
HOSPITALS AND RECEPTION-HOUSES—	
(a) <i>Hospitals—</i>	
<i>Report on Robroyston,</i> - - - - -	87
<i>Site,</i> - - - - -	87
<i>Wards,</i> - - - - -	87
<i>Water-Supply,</i> - - - - -	88
<i>Drainage,</i> - - - - -	88
<i>Population,</i> - - - - -	88
<i>Occupation of Wards,</i> - - - - -	88
<i>Measurements do.</i> - - - - -	88
(b) <i>Reception-houses—</i>	
<i>Return of Persons admitted,</i> - - - - -	90
REMOVALS BY PUBLIC CONVEYANCE OF PERSONS DEAD OF INFECTIOUS DISEASE, -	90
INTERMENTS IN CLOSED INTRAMURAL BURYING-GROUNDS, - - - - -	90
FRESH-AIR FORTNIGHT SCHEME, - - - - -	90

## SECTION III.

## PORT LOCAL AUTHORITY—

<i>Arrivals from Foreign Ports,</i> - - - - -	91
<i>Diseases on board Ships,</i> - - - - -	93
<i>Cholera and Plague,</i> - - - - -	94
<i>Smallpox,</i> - - - - -	94
<i>Phthisis,</i> - - - - -	95
<i>Enteric Fever,</i> - - - - -	97
<i>Measles,</i> - - - - -	98
<i>Scarlet Fever,</i> - - - - -	99
<i>Chicken pox,</i> - - - - -	99
<i>Trachoma,</i> - - - - -	100
<i>Beri-Beri,</i> - - - - -	100
<i>Pneumonia,</i> - - - - -	101
<i>Sanitary Condition of Vessels,</i> - - - - -	102
<i>Power of boarding Vessels by Port Local Authorities—Appendix,</i> - - - - -	103
<i>Expenditure and Revenue,</i> - - - - -	104
<i>Foreign Meat and Unsound Food Regulations,</i> - - - - -	105

## SECTION IV.

## GLASGOW POLICE AMENDMENT ACT, 1890—

## HOUSING OF THE WORKING CLASSES ACTS—

<i>Summary of Representations,</i> - - - - -	106
--	-----

## HOUSING, TOWN PLANNING, &amp;C., ACT, 1909—

<i>Representations, 1913,</i> - - - - -	107
<i>Summary of Results,</i> - - - - -	110
<i>Tenements Purchased and Demolished,</i> - - - - -	112
<i>Displacements,</i> - - - - -	113

CERTIFICATION OF LODGING-HOUSES FOR EXEMPTION FROM INHABITED HOUSE DUTY,	114
--	-----

FARMED-OUT HOUSES, - - - - -	114
------------------------------	-----

HOUSES LET IN LODGINGS, - - - - -	114
-----------------------------------	-----

## SECTION V.

## OFFENSIVE TRADES—

<i>Applications to establish Businesses under the Public Health (Scotland)</i> <i>Act, 1897, Section 32,</i> - - - - -	115
---	-----

## SECTION VI.

## FACTORY AND WORKSHOP ACT, 1901—

<i>Register of Workshops, &amp;c.,</i>	115
<i>Sanitary Condition of Workshops,</i>	115
<i>Home-Work,</i>	116
<i>Bake-houses,</i>	116
REGISTRATION OF HAIRDRESSERS,	117

## TABLES IN TEXT.

Summary of Vital Statistics for Year,	1
Inhabited Houses in the City,	3
Deaths occurring in Institutions.	8
Infant Mortality—Death-rates in Groups of Causes for Years 1903-1913,	15
Voluntary Visitors' Reports,	23
Infant Consultations—Number of Attendances,	25
Ophthalmia Neonatorum—Case-rates,	27
Do. do. Results of Treatment,	28
Case-rates for certain Zymotics. and for All Cases of Infectious Disease, 1903-1913,	38
Notifications of Infectious Disease during 1913,	39
Principal Zymotic Diseases—Death-rates in Wards whose Rates exceed the mean of the City,	40
Results of Primary Vaccination of Children born in Glasgow, 1902-10,	42
Diphtheria and Membranous Croup—Cases and Deaths, with Rates and Percentage treated in Hospital since 1891,	43
Diphtheria and Membranous Croup—Cases, Deaths, and Case-mortality at Home and in Hospital,	44
Diphtheria and Membranous Croup—Cases, with Annual Case-rate in Months since 1890-1900,	45
Diphtheria and Membranous Croup—Influence of School Holidays on Case-incidence,	45
Diphtheria and Membranous Croup—Age and Sex-distribution of Cases and Deaths, with Case-mortality,	46
Diphtheria and Croup—Death and Death-rates since 1895,	46
Enteric Fever—Cases and Deaths, with Rates, and Percentage treated in Hospital since 1891,	49
Enteric Fever—Cases, Deaths, and Case-mortality at Home and in Hospital,	52
Scarlet Fever—Cases and Deaths, with Rates, and Percentage treated in Hospital,	59
Scarlet Fever—Cases, Deaths, and Case-mortality at Home and in Hospital,	60
Do. —Return Cases,	60
Do. —Secondary Cases,	61
Do. —Influence of School Holidays on Case-incidence,	62
Measles—Deaths and Death-rates, with Percentage occurring in Hospital since 1895,	63
Whooping-cough—Deaths and Death-rates, with Percentage occurring in Hospital since 1895,	64
Diarrhœal Diseases—Autumnal Prevalence,	65
Phthisis—Death-rates in Quinquennia since 1855-59,	67

	PAGE
Phthisis—Death-rates in Wards, 1913, - - - - -	67
Do. Cases registered in 1910-13, - - - - -	69
National Insurance and Housing of Cases. - - - - -	72
Tuberculous Diseases—Deaths and Death-rates since 1894, - - - - -	73
Do. Deaths, with Rates, since 1883-88, - - - - -	74
Do. Death-rates, 1913, - - - - -	74
Respiratory Diseases—Death-rates, 1913, - - - - -	76
Puerperal Fever—Cases, with Case-rate and Case-mortality, - - - - -	78
Erysipelas—Death-rates since 1891, . - - - - -	78
Bacteriological Laboratory—Number of Specimens received, 1913, - - - - -	81
Port Local Authority—	
Arrivals from Foreign Ports, - - - - -	91
Nationality of Ships and Crews, - - - - -	92
Diseases on Clyde-bound Ships, - - - - -	93
Defects found on Vessels, - - - - -	102
Inspection of Vessels, - - - - -	103
Expenditure and Revenue, - - - - -	104
Housing of the Working Classes Acts, 1890—	
Tenements Demolished in years, - - - - -	106
Housing, Town Planning, &c., Act, 1909 —	
Number of Houses represented, - - - - -	107
Tenements demolished in years, - - - - -	111
” ” ” Wards, - - - - -	111
Summary of Displacements, - - - - -	113

## CHARTS.

Birth rates, 1855-1913, - - - - -	6
Death-rates, 1855-1913, - - - - -	6
Infantile Mortality, 1855-1913, - - - - -	14
Diphtheria—Notifications in Months, 1898-1913, - - - - -	46
Enteric Fever—Notifications in Months, 1898-1913, - - - - -	50
Scarlet Fever—Notifications in Months, 1898-1913, - - - - -	59
Population of Glasgow since 1811, - - - - -	172
Glasgow—Infant Mortality in Quinquennial Periods, - - - - -	223

## TABLES IN APPENDIX I.

I.—Inhabited Houses, and Population in Wards, - - - - -	119
II.—Unoccupied Houses in Wards, - - - - -	120
III.—Linings granted by Dean of Guild Court, - - - - -	120
IV.—Acreage, Inhabited Houses, Persons per Acre, &c., in Wards, - - - - -	121
V.—Meteorological Observations, - - - - -	122
VI.—Births and Birth-rates in Wards, - - - - -	122
VII.—Deaths and Death-rates in Wards, - - - - -	123
VIII.—Transfer Deaths—Outward, - - - - -	124
IX.—Do. —Inward, - - - - -	125
X.—Death-rates—Principal Groups of Diseases, - - - - -	126
XI.—Deaths from different Diseases at several Age-periods, - - - - -	127
XII.—Institutional Deaths, - - - - -	128
XIII.—Institutional Deaths, - - - - -	129
XIV.—Deaths from different Diseases in Wards, - - - - -	130
XV.—Death-rates per Million in Wards, - - - - -	132

	PAGE
XVI.—Deaths in Institutions, Nursing Homes, &c., - - -	134
XVII.—Deaths under One year and Death-rate in Wards, - - -	136
XVIII.—Infant Deaths (Male), classified under Principal Groups of Causes,	137
XIX.—Do. (Female), do. do. -	138
XX.—Notifications under Notification of Births Act, 1907, in Wards, -	139
XXI.—Births attended Medically and Non-Medically in Wards, - -	140
XXII.—Live-Births and Still-Births attended Medically and Non-medically in Wards, - - - - -	141
XXIII.—Cases of certain Zymotics, Phthisis, and all Infectious Diseases, -	142
XXIV.—Case-rates for certain Zymotics, Phthisis, and for All Cases of Infectious Disease, in Wards, - - - - -	143
XXV.—Cases of Infectious Disease registered during the year in each Municipal Ward, showing number treated in Hospital, - -	144
XXVI.—Cases of Infectious Disease registered in each month during the year, showing the number treated in Hospital, - - -	146
XXVII.—Statutory Declarations of Conscientious Objection to Vaccination in Wards, - - - - -	147
XXVIII.—Puerperal Fever—Cases in Wards, - - - - -	148
XXIX.—Glasgow—Deaths certified and otherwise in each Municipal Ward.	149
XXX.—Certification of Deaths, - - - - -	150
XXXI.—Do. Legitimate and Illegitimate, - - - - -	150
XXXII.—Insurance of Lives in Friendly Societies, - - - - -	151
XXXIII.—Glasgow—Deaths in Friendly Societies in each Municipal Ward, -	152
XXXIV.—Farmed-out Houses, - - - - -	153
XXXV.—Houses Let in Lodgings, - - - - -	154
XXXVI.—Workshops and Work-places, in Wards, - - - - -	155
XXXVII.—Factories, Workshops, &c., Inspections and Defects, - - -	156
XXXVIII.—Registered Workshops, &c. - - - - -	157
XXXIX.—Home Work, - - - - -	158
XL.—Workshops Measured and Registered during Year, - - -	159
XLI.—Workshops and Employees on the Registers, - - -	160
XLII.—Bakehouses—Underground—Number on Register, &c., - - -	168
XLIII.—Do. Overground—Number on Register, &c., - - -	169
XLIV.—Hairdressers—Number in Wards, - - - - -	170
XLV.—GLASGOW.—Population, Births and Deaths, Birth-rates and Death- rates per 1,000; also Deaths under one year per 1,000 born, from 1860 to 1913. - - -	171
XLVI.—„ Census Population with and without Institutions and Shipping in each Municipal Ward; Births and Deaths, and their proportion to the population during the year 1913; also the Illegitimate Births and their proportion to the total Births, - - -	172
XLVII.—„ City of Glasgow Fever and Smallpox Hospitals.—Number, Average Residence, and the Cost of Treatment of all Patients from 1883-84 to 1913-14, - - -	173
XLVIII.—„ City of Glasgow Fever and Smallpox Hospitals.—Statement showing Patients classified as to Disease, with Average Residence and Average Cost, for each Year from 1888-89 to 1913-14, - - - - -	174
XLIX.—„ Hospital Bed Accommodation for Infectious Diseases in Glasgow since 1865, - - - - -	175
L.—„ Return showing Number, Average Residence, and Cost of Treatment of Patients in City of Glasgow Fever and Smallpox Hospitals during year 1913-14, - - -	176



## APPENDIX II.

SUPPLEMENTARY CENSUS REPORT, GLASGOW AND AREA ADDED TO THE CITY,  
NOVEMBER, 1912.

INTRODUCTION, - - - - -	177
<i>Acreage,</i> - - - - -	177
<i>Wards,</i> - - - - -	177

## POPULATION—

<i>Population of Annexed Areas in Counties and Parishes, 1901 and 1911,</i> -	178
<i>Ward Populations,</i> - - - - -	178
<i>Population of Glasgow since 1801,</i> - - - - -	179
<i>Institutional Population,</i> - - - - -	180
<i>Shipping Population,</i> - - - - -	180
<i>Formula for estimating Populations in Intercensal Years,</i> - - - - -	180

## HOUSING—

<i>Inhabited and Empty Houses,</i> - - - - -	181
<i>Occupancy of Houses of Various Sizes,</i> - - - - -	181
<i>Proportion of Houses of Certain Sizes and of Population inhabiting them,</i>	181
<i>Number of Persons per Room,</i> - - - - -	182
<i>Density of Population,</i> - - - - -	182

## SEX AND AGE DISTRIBUTION AND CONJUGAL CONDITIONS—

<i>Sex Distribution,</i> - - - - -	183
<i>Age Distribution,</i> - - - - -	183
<i>Proportion of Female to Male Population,</i> - - - - -	183
<i>Proportion of Population at Various Ages, Old and New Areas,</i> - -	184
<i>Age Distribution of Population occupying Houses of different sizes,</i> -	184
<i>Age Distribution of Population in Old and New Areas,</i> - - - - -	185
<i>Sex Distribution and Civil Condition,</i> - - - - -	185
<i>Conjugal Condition of Population over Fifteen years of age,</i> - - - -	186

## TABLES IN TEXT.

Distribution of Wards, - - - - -	178
Populations of Annexed Areas in Counties and Parishes, 1901 and 1911, -	178
Populations occupying Various Sized Houses, - - - - -	181
Proportion of Male and Female Population at Various Age Periods, - -	183
Age Distribution of Population in Old and New Areas, - - - - -	184
Age Distribution of Population according to Size of House. - - - - -	184
Age Distribution of Population per 100,000 Persons Living, - - - - -	185
Sex Distribution and Civil Condition, - - - - -	185
Conjugal Condition of Population over Fifteen Years of Age, - - - - -	186

## TABLES IN APPENDIX.

TABLE I.—Table showing Acreage, Population, Houses (Inhabited and Empty), Windowed Rooms, Persons per Acre, per House, and per Room in Municipal Wards Census 1911, - - - - -	187
TABLE II.—Number of Inmates and Windowed Rooms in Institutions in each Municipal Ward, - - - - -	188



TABLE III.—Proportion per cent of each Sex living at various Periods of Life of the Total Population (exclusive of the Inmates of Institutions and Shipping) in each Municipal Ward and in the City, and of the Total Inmates of Institutions and Shipping, - - - - -	189
TABLE IV.—Inhabitants grouped according to Size of House, and also Number of Windowed Rooms in the City and Municipal Wards, - - - - -	191
TABLE V.—Proportion per cent. of Houses of Various Sizes, and the Population dwelling in them in the City and Municipal Wards, - - - - -	192
TABLE VI.—Average Number of Inmates per House of each Size and of all Sizes, also percentage of Empty Houses in the City and Municipal Wards, - - -	193
TABLE VII.—Percentage of Children under 1 and under 5 years, and of Females 15 to 45 years, to Total Population in the City and Municipal Wards, - - -	193
TABLE VIII.—Age, Sex, Civil Condition, and Housing of the Population, Area added to City, - - - - -	194
TABLES VIII. (1 to 11).—Age, Sex, Civil Condition, and Housing of the Population, Municipal Wards, - - - - -	196
TABLE IX.—Age, Sex, Civil Condition, and Housing of the Population, Greater Glasgow, - - - - -	218

## CHART.

Populations of Glasgow during Past Century, - - - - -	172
---	-----

## APPENDIX III.

## INFANT MORTALITY IN THE FIRST FOUR WEEKS OF LIFE.

Introduction, - - - - -	220
Scarcity of Information, - - - - -	221
General Movement of Death-rate in last 20 years, - - - - -	221
Immaturity and Wasting as a Cause of Death, - - - - -	222
Deaths under One Month, - - - - -	223
Causes of Death in each of the First Four Weeks, - - - - -	225
Constituents of Immaturity, - - - - -	226
Sex Differences in the First Four Weeks, - - - - -	227
Relation of Still-Births to Previous Miscarriages and Still-Births, - - - - -	227
Number of Previous Still-Births and Miscarriages, - - - - -	228
Employment of Mothers in Relation to Still-Births, - - - - -	229
Relation to Social Conditions, - - - - -	229
Health during Pregnancy of Mothers of Still-Born Children, - - - - -	230
Conclusions, - - - - -	230
Tables, - - - - -	231

## APPENDIX IV.

## THE INCREASE OF DIPHTHERIA IN SCOTLAND IN RECENT YEARS.

Interruption to the Descending Death-rate, - - - - -	234
Increase in Number of Cases in Recent Years, - - - - -	234
Change in Age-Distribution, - - - - -	235
Later Age of Attack, - - - - -	235
Prevalence and Virulence, - - - - -	236

## APPENDIX V.

## REPORT BY OFFICIALS AS TO TREATMENT OF TUBERCULOSIS.

*Legislative Provisions—*

General, - - - - -	237
Under the Insurance Act, - - - - -	238
Financial Provisions, - - - - -	239
Extension of Sanatorium Benefit to Dependents, - - - - -	239
Provision for Non-insured Persons, - - - - -	239
Administration, - - - - -	239
Insufficiency of Amount available for Sanatorium Benefit, - - - - -	240
Position of the Local Authority in Relation to the Provisions of the Insurance Act, - - - - -	241
Conclusions, - - - - -	242

## APPENDIX VI.

RISKS OF SMALLPOX IN VIEW OF THE DECLINING VACCINATION RETURNS  
OF THIS COUNTRY.

Increasing Number of Conscientious Objectors, - - - - -	244
Reduction in Time of Transfer from Foreign Ports which may be Infected, - - - - -	244
Number of Ships, Crews, and Passengers arriving in Glasgow from Canadian Ports, - - - - -	245
Power to Include Smallpox within the Cholera Order, - - - - -	246

# REPORT

OF THE

## MEDICAL OFFICER OF HEALTH.

1913.

### SECTION I.

The Report for 1912 dealt with the area of the City prior to extension, and Appendix VI. of that Report contained a Summary of the more important statistical data for the Burghs of Partick, Govan, and Pollokshaws for the year. Corresponding information for the closing weeks of 1912 was forwarded to the Medical Officers of the added landward areas. The present is thus the first Report for the area as extended in November, 1912.

It had been intended to recast the whole form of the Report in order to reduce its bulk, but the outbreak of hostilities in Europe has interfered with this, and the added areas have been dealt with in the form previously adopted.

Some changes have, however, been necessary, more particularly in the method of classifying deaths, and the inclusion of the deaths of all persons whose "usual" or last known place of residence was within the City boundary. This has been rendered necessary in consequence of instructions from the Local Government Board and Registrar-General with the object of improving the former system.

Some extension of the section on Infant Mortality has been necessary in order to include information regarding the treatment of young children suffering from venereal diseases, and the effect of these diseases on antenatal life. This latter question was made the subject of a special enquiry, which is reported in Appendix III.

The following Table gives a summary of the principal vital statistics of the City for 1913:—

Population,	...	...	...	...	...	...	...	...	*1,032,228
Acreage,	...	...	...	...	...	...	...	...	19,183
Persons per acre,	...	...	...	...	...	...	...	...	54
Number of Inhabited Houses,	...	...	...	...	...	...	...	...	216,952
Deaths—Number registered,	...	...	...	...	...	...	...	...	17,777
„ After correction for Institutions, &c.,	...	...	...	...	...	...	...	...	17,693
Births—Number registered,	...	...	...	...	...	...	...	...	28,840
„ After correction,	...	...	...	...	...	...	...	...	28,688
Death-rate per 1,000 living—All causes,	...	...	...	...	...	...	...	...	17·14
Birth-rate per 1,000 living,	...	...	...	...	...	...	...	...	27·79
Deaths under One Year—Registered,	...	...	...	...	...	...	...	...	3,727
„ „ After correction,	...	...	...	...	...	...	...	...	3,706
Deaths „ „ „ per 1,000 births,	...	...	...	...	...	...	...	...	129

\* Estimated to middle of year.

General Diseases—							
(a)	Infectious diseases,	...	...	...	...	...	2.48
(b)	Septic diseases,	...	...	...	...	...	.12
(c)	Tuberculous diseases—						
	(1) Phthisis,	...	...	...	...	1.41	2.13
	(2) Others,	...	...	...	...	.72	
(d)	Malignant diseases (cancer, &c.),	...	...	...	...	...	.97
(e)	Other General diseases,	...	...	...	...	...	.21
	Diseases of the nervous system,	...	...	...	...	...	1.66
	Diseases of the circulatory system,	...	...	...	...	...	1.76
	Respiratory diseases,	...	...	...	...	...	2.92
	Digestive diseases,	...	...	...	...	...	.65
	Congenital defects and malformations, (including premature births),						
	Violence,	...	...	...	...	...	.68
	All other causes,	...	...	...	...	...	2.39
All causes,							17.14

### ESTIMATES OF POPULATION.

According to a return prepared by the City Assessor the number of occupied houses within the municipal boundary at Whitsunday, 1913, was 216,952, and the number of empty houses 18,710. Compared with Whitsunday, 1912, this represents an increase of 3,696 on the number occupied and a reduction of 3,927 on the number empty. Applying to the number occupied the factor representing the ratio between population and houses, based on the Census information, the population at the middle of 1913 would appear to be 1,032,228, which represents an addition to the 1912 population of 17,063, and is equal to a rate of 1.68 per cent.

During the decade 1901-11 the population inhabiting the present area of the City increased by 54,687, or .57 per cent. annually, but this was composed of an increase equal to .12 per cent. within the old area and 3.13 per cent. in the area since added.

Comparing these with the present rate of increase, we have—

	1912.	1913.	Increase.			
			1913.		Per Cent. Average Annual 1901-11.	
			No.	%		
Glasgow before extension,	784,552	792,607	8,055	1.02	.12	
Added areas, ...	230,613	239,621	9,008	3.91	3.13	
Glasgow after extension,	1,015,165	1,032,228	17,063	1.68	.57	

The increase indicated within the older area will arrest attention, as it is associated with an apparent repopulation of many houses within the Parliamentary boundary. formerly returned as empty. Apart from this, however, the actual excess of births over deaths would explain fully one-half of the apparent increase of over 17,000 persons. Within the former area the births numbered 21,709, and the deaths 14,592, or an excess of 7,117 births. For the added area the number of births and deaths during the period between June and November, 1912, are not at the moment available, but from the return of both between November, 1912, and May, 1913, the difference may be estimated at 2,500, so that by excess of births alone something like 9,600 of the total increase of 17,000 would be explained.

The distribution of the increase is of some significance, however, and suggests that the present estimates may require revision. Of the 3,696 additional houses occupied during the year, 936 were returned within the Parliamentary boundary, 1,141 beyond the Parliamentary boundary, but



within the former municipal area, and 1,625 in the added area. The chief source of uncertainty surrounds the number returned within the Parliamentary boundary. Unless this is to be explained by a greater accuracy in applying the definition "house" to premises in which persons reside, and which, from an interview I have had with Mr. Walker, is I think highly probable, it suggests a reflux of population (in this present instance to the extent of about 4,000 persons) to the formerly decreasing areas, and the reversal of a decentralising movement which has been continued for a large number of years.

To some extent, however, this suggestion of an increased occupancy of houses within the Parliamentary area is supported by reference to the number of children on the roll of the schools within the area of the Glasgow School Board. This shows an increase on the corresponding figures for 1912, although not to an extent which would be equivalent to the added families represented by the increase in the number of houses, for while the children on the roll have increased by 143, this would only represent an addition of about 172 houses. The discrepancy is not of great importance at the moment, and subsequent experience of the precise bearing of the readjustment of houses will in all probability throw light on the point. The Registrar-General's revised estimate of the 1913 population is 1,029,478, and for 1914, 1,047,100.

GLASGOW.—INHABITED HOUSES WITHIN AND BEYOND THE PARLIAMENTARY BURGH OF THE OLD AREA OF GLASGOW AND IN THE ADDED AREA.

YEAR.	Within PARLIAMENTARY BURGH.			Outwith PARLIAMENTARY AREA (1911 Boundary).			AREA ADDED IN 1912.		
		Increase. +	Decrease. —		Increase. +	Decrease. —		Increase. +	Decrease. —
1906	128,608	...	601	37,698	1,141	...	...	...	...
1907	128,344	...	264	38,550	852	...	...	...	...
1908	126,521	...	1,823	39,241	691	...	...	...	...
1909	125,368	...	1,153	39,847	606	...	...	...	...
1910	124,666	...	702	39,731	...	116	...	..	...
1911	124,600	...	66	39,928	197	...	47,530	...	...
1912	124,097	...	503	40,444	516	...	48,715	1,185	...
1913	125,027	930	...	41,585	1,141	...	50,340	1,625	...

UNOCCUPIED HOUSES.

The following is a statement of the houses which were found unoccupied during the course of the survey made by the City Assessor during the month of June, 1913. The details of each Ward will be found in Table II. :—

NUMBER OF UNOCCUPIED HOUSES CLASSIFIED ACCORDING TO NUMBER OF APARTMENTS.

	Old City.						Greater Glasgow.
	1908.	1909.	1910.	1911.	1912.	1913.	1913.
One apartment, ...	3,989	3,451	3,615	3,840	3,731	3,758	4,169
Two apartments, ...	8,080	8,665	10,048	9,890	9,460	8,730	9,762
Three „ ...	2,842	2,906	3,484	3,455	3,426	2,465	2,731
Four „ ..	959	1,034	1,221	1,250	1,180	888	954
Five „ ...	1,220	1,230	1,347	1,280	1,090	933	1,094
	17,090	17,286	19,715	19,715	18,887	16,774	18,710

The number of unoccupied houses in the old area of Glasgow is the lowest recorded during the past six years, being 16,774, as compared with 18,887. The largest decrease occurs in three-apartment houses, and amounts to about 1,000, while unoccupied two-apartment houses are fewer by 730.

#### LININGS GRANTED BY DEAN OF GUILD COURT.

Table III. of Appendix I. contains a statement of linings for new houses granted by the Dean of Guild during the years ending 31st August, 1912 and 1913, supplied by the Master of Works. Altogether linings were granted in respect of 461 houses; in the old area alone 249, compared with 200 for the same area for the preceding year. In the added area linings were granted for 212 houses between 5th November, 1912, and 31st August, 1913.

#### ACREAGE.

The acreage, number of inhabited houses, and population in each of the Municipal Wards, with the increase or decrease in population since the Census of 1911, is contained in Appendix Table IV. The total acreage is now 19,183 acres, 6,208 acres having been added by the recent extension.

#### TEMPERATURE AND RAINFALL.

The summary of the results of meteorological observations, taken at the Glasgow University by Professor Becker, shows that rain fell on 201 days, or 11 days less than the yearly average since 1868; 32 years had a higher rainfall, and 30 years had more days on which rain fell. Snow was recorded on 12 days, which is the average of the period of observation.

During the year the temperature was on 208 days above the average, while the year is the fifth warmest in 46 years. The temperature throughout, however, was very equable. On no day was it above 75°, and on three days only did it exceed 70°. On no day (average number 3) did the temperature remain all day below freezing-point.

Bright sunshine was recorded on 251 days, but the number of hours of sunshine is the second lowest on record, 1912 being the lowest.

Appendix Table V., compiled from the information supplied by Professor Becker, shows the mean temperature and rainfall for each month, with the deviations from the average of 45 years.

#### MARRIAGES.

9,812 marriages were registered in Glasgow in 1913. These represent marriage rates per 1,000 persons living of 9·5 and 9·8 respectively on the estimated populations. The following Table shows the marriage rate over a series of years, and although the rate for the present year is below that of last year, it still exceeds the rate of 1908 to 1910, when industrial depression prevailed:—

##### GLASGOW.—MARRIAGE RATE PER 1,000 PERSONS LIVING.

1870, ... ..	9·8	1896-1900, ... ..	9·9
1871-1875, ... ..	9·9	1901-1905, ... ..	9·4
1876-1880, ... ..	9·0	1906-1910, ... ..	9·1
1881-1885, ... ..	9·4	1911, ... ..	9·5
1886-1890, ... ..	8·8	1912, ... ..	9·8
1891-1895, ... ..	9·0	1913, ... ..	9·5.



## BIRTHS.

28,688 births were registered as belonging to Glasgow during the year 1913. This represents a birth-rate of 27·792 per 1,000 persons living, as compared with 27·802 for 1912.

The Chart is repeated for the present year, and shows the variation of the birth-rate in relation to the mean of the years 1855-1913.

Returning to the usual method of stating these rates, we have the following for several periods since 1871 :—\*

						Glasgow.	Scotland.
1871-80,	...	...	...	...	...	36·6	34·9
1881-90,	...	...	...	...	...	36·5	32·4
1891-95,	...	...	...	...	...	33·9	30·7
1896-1900,	...	...	...	...	...	33·1	30·0
1901-1905,	...	...	...	...	...	31·3	28·9
1906-1910,	...	...	...	...	...	27·4	26·7
1911,	...	...	...	...	...	27·7	25·6
1912,	...	...	...	...	...	28·1	25·9
1913,	...	...	...	...	...	27·9	25·5

The birth-rate shows considerable variation throughout the several Wards. In Mile-end, Springburn, Govan (Central), and Dalmarnock it exceeded 35 per 1,000 in the order named, while in 15 Wards the rate exceeded 30, and in other 3 Wards the mean of the City was exceeded.

The lowest birth-rates were recorded in Pollokshields, Blythswood, and Park Wards.

The number of births and the rates in each Ward, together with the corresponding rates for several years, are shown in Table VI. of Appendix I.

On the basis of the Registrar-General's Returns, the following comparison is made of the rates for several periods in Glasgow and other towns :—

						1903-1912.	1913.
Glasgow,	...	...	...	...	...	28·6	27·9
Edinburgh,	...	...	...	...	...	21·9	19·5
Dundee,	...	...	...	...	...	27·2	24·6
Aberdeen,	...	...	...	...	...	26·6	23·9
London,	...	...	...	...	...	25·9	24·9
Liverpool,	...	...	...	...	...	31·9	30·5
Manchester,	...	...	...	...	...	28·7	26·4
Birmingham,	...	...	...	...	...	28·6	27·8

## DEATHS—ALL CAUSES.

17,777 deaths from all causes were registered in Glasgow during the year 1913.

These are subject to correction for deaths occurring in institutions and for extra-mural deaths, as follows :—

Deaths registered as occurring within the City,	...	...	17,777
Deduct deaths occurring in Glasgow, chiefly in Institutions, of persons whose usual residence was beyond the City boundary,		828	
		<hr/>	16,949
Add deaths of Glasgow citizens, occurring outwith boundary,	...	744	
Deaths properly belonging to Glasgow,	...	...	<hr/> 17,693 <hr/>

\* The rates in these Tables are taken from the Registrar-General's Annual Reports.

This represents a death-rate of 17·141 per thousand living, as compared with 16·264 in the preceding year, or an increase of 877 per million.

On the Registrar-General's estimate of population as at midsummer and corrected deaths, the death-rate is 17·2 per thousand.

For several periods the death-rate from all causes, *calculated on the inhabited house estimate of the population and on the deaths as corrected*, has been as follows:—

GLASGOW.—ALL CAUSES—DEATH-RATE PER 1,000 LIVING.

1881-1890, ... ..	24·22
1891-1900, ... ..	21·53
1901-05, ... ..	18·97
1906-1910, ... ..	17·51
1911, ... ..	16·44
1912, ... ..	16·26
1913, ... ..	17·14

In order to compare these rates with those of other towns, in the following Table the rates are given for several of the large towns in England and Scotland:—

GLASGOW AND SEVERAL TOWNS—DEATH-RATE PER 1,000 LIVING.

	1903-1912.	1913.
Glasgow, ... ..	19·0	17·2
Edinburgh, ... ..	16·9	14·4
Dundee, ... ..	19·1	17·6
Aberdeen, ... ..	16·3	17·6
London, ... ..	15·1	14·4
Liverpool, ... ..	20·1	18·2
Manchester, ... ..	18·6	15·8
Birmingham, ... ..	16·8	15·0

QUARTERLY DEATH-RATES.

For comparative purposes a Table, based on the Quarterly Returns of the Registrar-General, is here introduced, showing the quarterly death-rates for each year since 1904.

GLASGOW.—QUARTERLY DEATH-RATE, 1904-1913.

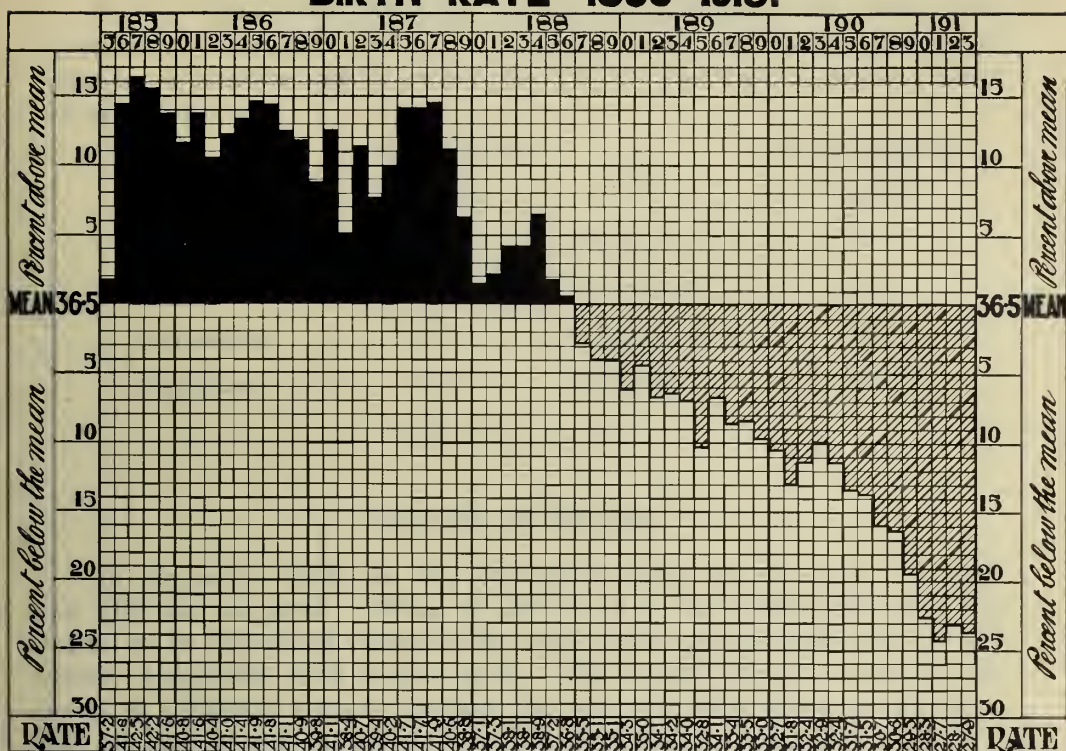
	AVERAGE.			
	1904-5.	1906-10.	1911-12.	1913.
First Quarter, - - - -	21·6	22·1	20·3	20·2
Second „ - - - -	19·6	19·2	16·9	17·1
Third „ - - - -	16·7	15·4	15·0	15·5
Fourth „ - - - -	20·3	19·5	18·4	16·6
Year, - - - -	19·6	19·0	17·7	17·2

A Chart, showing the death-rate in each year since 1855 in relation to the mean of the period 1855-1913, will be found facing this page.

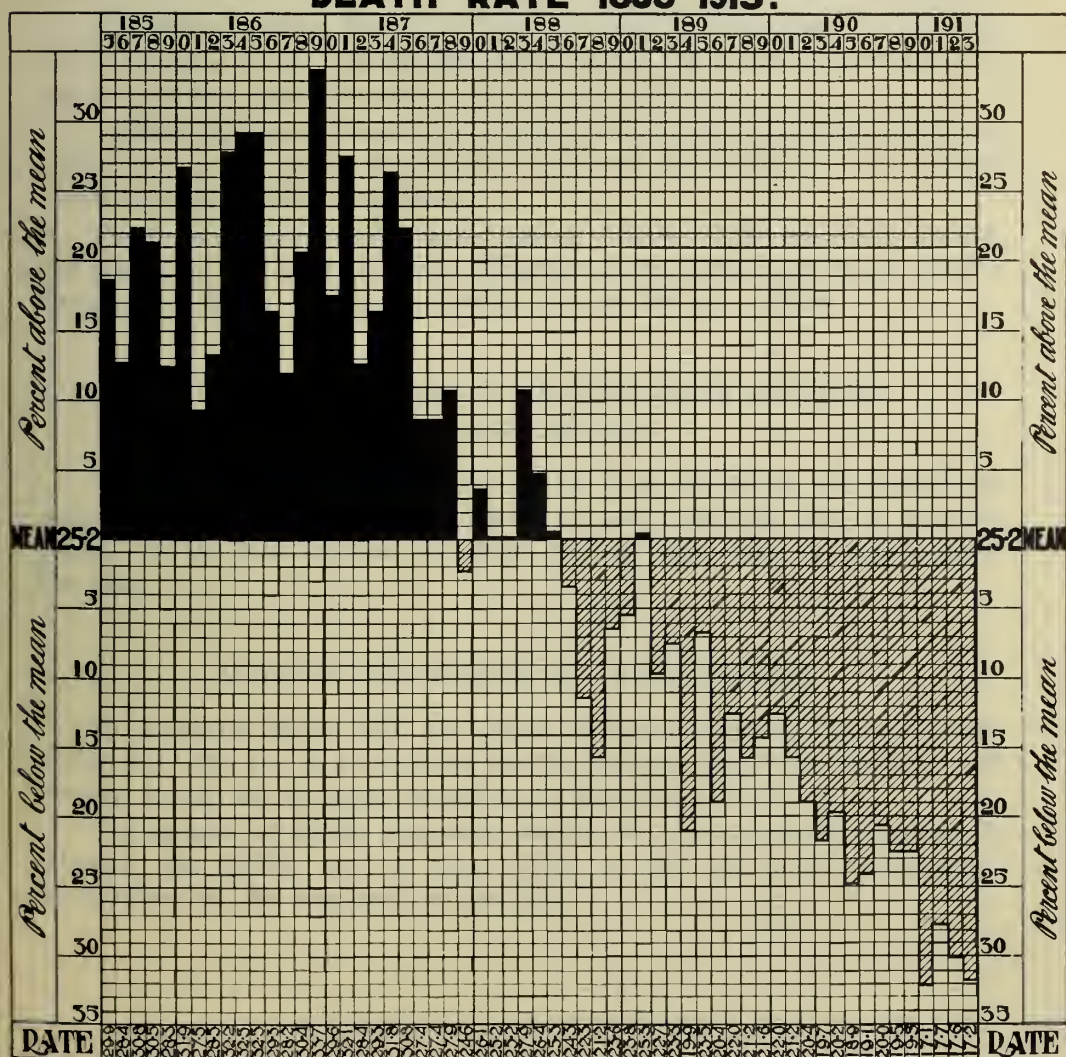
WARD DEATH-RATES.

In Table VII. of the Appendix the deaths and death-rates for each of the several Wards are given for 1913, and for comparison the corresponding rates since 1903.

# BIRTH-RATE 1855-1913.

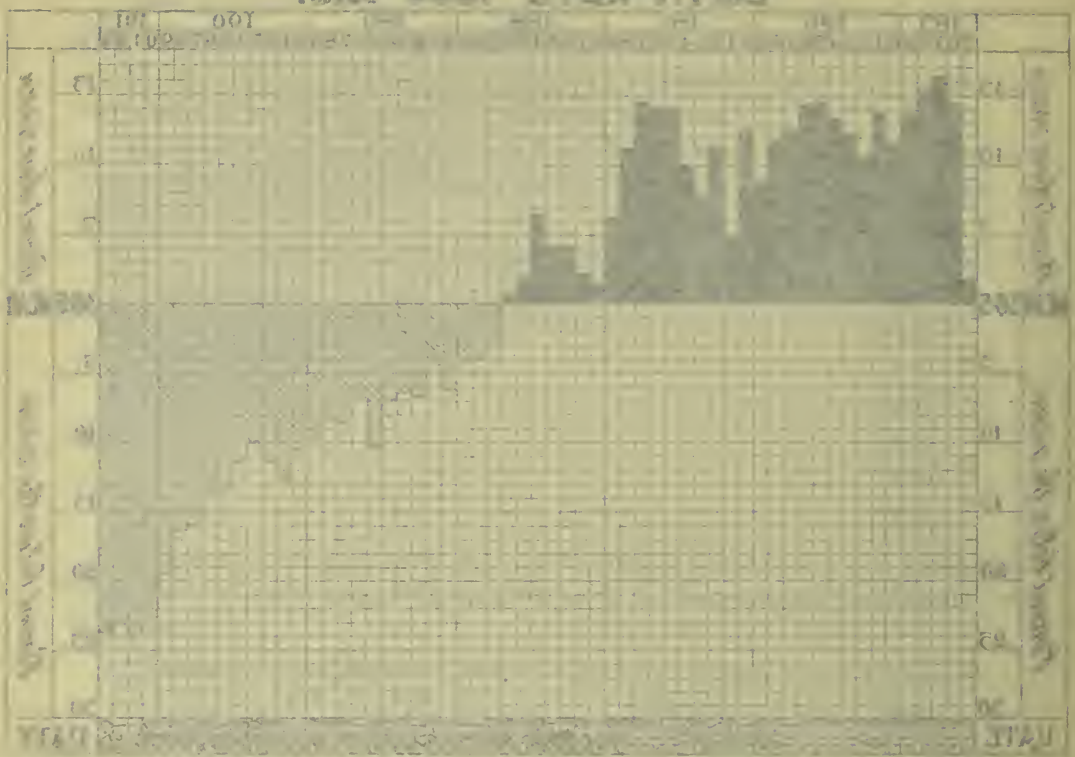


# DEATH-RATE 1855-1913.

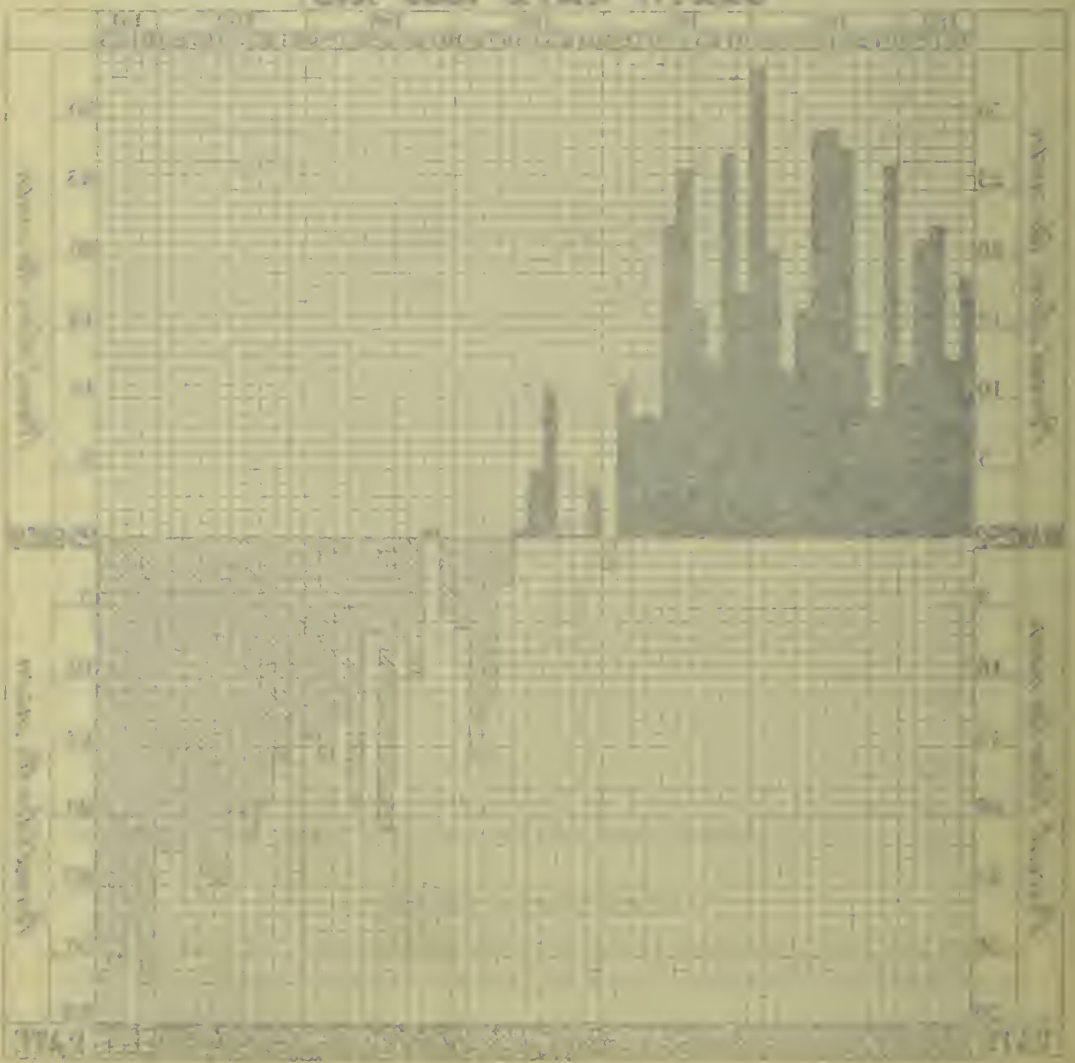




# BIRTH-RATE 1885-1912.



# DEATH-RATE 1885-1912.



On the average rates for these years it is now possible, with some degree of accuracy, to grade the Wards in relation to the mean for the City, and I select for illustration eight in which the rate is *continuously* in excess. These are as follows:—

Ward.	Average Death-rate per 1,000. 1903-13.	Ward.	Average Death-rate per 1,000. 1903-13.
Broomielaw, ...	23·4	Mile-end, ...	20·4
Calton, ...	21·9	Dalmarnock, ...	19·3
Cowcaddens, ...	21·7	Hutchesontown, ...	19·3
Blackfriars, ...	21·1	Whitevale, ...	18·8
City, =		17·4	

#### CAUSES OF DEATH.

In Appendix Table X. the death-rates from several causes in 1912 and 1913 are compared. Owing to alterations in the method of classifying deaths, to be considered subsequently, some of the group death-rates are not strictly comparable with former years. The largest increase occurs in the group of principal zymotic diseases, the rate for 1913 being greater than that for 1912 by 601 per million.

Whooping-cough, diarrhœa, and enteritis practically account for the whole increase, the former being 422, and the latter 301 per million higher.

Diphtheria, enteric fever, and measles show small decreases. In tuberculous diseases there is an increase equal to 158 per million, 94 of which is due to phthisis, and 64 to other tuberculous diseases.

Cancer (malignant disease) and diseases of the nervous system also show higher rates, and among unclassified causes of death there is an increase which is equal to 558 per million.

The principal decreases occurred among diseases of the respiratory group, and amounted to 312 per million. Diseases of the circulatory system show a decrease of 138 per million, and septic diseases 102 per million.

#### AGE DISTRIBUTION OF DEATHS FROM SEVERAL AND ALL CAUSES.

Appendix Table XI. shows the deaths from all causes at several age periods. The age grouping now shown is more extended than in previous years. Of the total number of deaths, 21 per cent. were of infants under one year.

#### DEATHS OCCURRING IN INSTITUTIONS.

In Appendix Table XVI. the causes of deaths occurring in Institutions within the City, *i.e.*, in poorhouses, lunatic asylums, hospitals, sanatoria, and nursing homes, are arranged according to Municipal Wards.

The number of deaths registered during the year of persons resident in Glasgow was 16,793, and of these 5,000, or 28·3 per cent., occurred in Institutions for the treatment of the sick.

The following summary affords a comparison of the proportion in the various groups:—

GLASGOW, 1913.—TABLE SHOWING TOTAL DEATHS, DEATHS OCCURRING IN INSTITUTIONS, AND THE LATTER AS A PERCENTAGE OF THE TOTAL.

Cause of Death.	Total Deaths.		Number Occurring in Institutions.		Percentage in Institutions.	
General Diseases, ... ..	...	5,238	...	1,882	...	35.9
1. Enteric Fever, ... ..	37	...	32	...	86.5	...
2. Typhus Fever, ... ..	6	...	6	...	100.00	...
3. Small-pox, ... ..	...	...	...	...	...	...
4. Measles, ... ..	578	...	133	...	23.0	...
5. Scarlet Fever, ... ..	135	...	126	...	93.3	...
6. Whooping-cough, ... ..	753	...	176	...	23.4	...
7. Diphtheria and Memb. Croup, ... ..	187	...	155	...	82.9	...
8. Croup, ... ..	10	...	1	...	10.0	...
9. Influenza, ... ..	88	...	4	...	4.5	...
10. Erysipelas, ... ..	64	...	38	...	59.4	...
11. Septicæmia, ... ..	34	...	18	...	52.9	...
11 <sup>A</sup> . Other Septic Diseases, ... ..	30	...	19	...	63.3	...
12. Pulmonary Tuberculosis, ... ..	1,457	...	639	...	43.8	...
13. Tuberculous Meningitis, ... ..	307	...	64	...	20.8	...
14. Abdominal Tuberculosis, ... ..	213	...	31	...	14.6	...
15. Other Tuberculous Diseases, ... ..	219	...	92	...	42.0	...
16. Cancer (Malignant Disease), ... ..	996	...	325	...	32.6	...
17. Rheumatic Fever, ... ..	80	...	13	...	16.3	...
18. Alcoholism, ... ..	44	...	10	...	22.7	...
Diseases of Nervous System, ... ..	...	1,792	...	375	...	20.9
19. Cerebro-Spinal Fever, ... ..	35	...	8	...	22.9	...
20. Meningitis (not Tuberculous), ... ..	206	...	33	...	16.0	...
21. Cerebral Hæmorrhage (Apoplexy), ... ..	733	...	168	...	22.9	...
22. Other Nervous Diseases, ... ..	778	...	166	...	21.3	...
Circulatory Diseases, ... ..	...	1,814	...	651	...	35.9
23. Organic Heart Disease, ... ..	1,229	...	359	...	29.2	...
24. Other Circulatory Diseases, ... ..	585	...	292	...	49.9	...
Respiratory Diseases, ... ..	...	3,002	...	676	...	22.5
25. Bronchitis, ... ..	1,092	...	195	...	17.9	...
26. Pneumonia (all forms), ... ..	1,615	...	429	...	26.6	...
27. Other Respiratory Diseases, ... ..	295	...	52	...	17.6	27.5
Digestive Diseases, ... ..	...	1,503	...	414	...	...
28. Diarrhœa and Enteritis, ... ..	833	...	115	...	13.8	...
29. Appendicitis and Typhlitis, ... ..	80	...	67	...	83.8	...
30. Cirrhosis of the Liver, ... ..	42	...	15	...	35.7	...
31. Other Digestive Diseases, ... ..	548	...	217	...	39.6	...
Other Causes.—	...	...	...	...	...	...
32. Nephritis and Bright's Disease, ... ..	...	529	...	184	...	34.8
33. Puerperal Fever, ... ..	...	51	...	41	...	80.4
34. Other Accidents and Diseases of Preg. and Part., ... ..	...	84	...	32	...	38.1
35. Congenital Deb. and Malf. (Incl. Prem. B.), ... ..	...	1,205	...	114	...	9.5
36. Violence, ... ..	...	698	...	264	...	37.8
37. Unknown, ... ..	...	56	...	5	...	8.9
38. All Other Causes, ... ..	...	1,761	...	362	...	20.6
All Causes, ... ..	...	17,693	...	5,000	...	28.3

Among general diseases the proportion of deaths occurring in Institutions is almost 36 per cent. In typhus fever, scarlet fever, enteric fever, and diphtheria, where the major portion of the cases occurring are removed for treatment, the proportion of deaths in hospital is correspondingly high, being between 80 and 90 per cent. for scarlet fever, enteric fever, and diphtheria.



Among septic diseases the proportion of deaths in Institutions was equal to 65 per cent., 41 out of 51 deaths from puerperal fever having occurred in hospitals.

Tuberculous diseases—the proportion dying in Institutions is over 37 per cent., the proportion among phthisis alone being 44 per cent.

#### TRANSFER DEATHS.

Tables VIII. and IX. in the Appendix show the causes of death in the various age periods “transferred to” and “out of Glasgow.” The number of inward transferred deaths was 744 during the year, 139 being due to “other nervous diseases,” 92 to pulmonary tuberculosis, 73 to violence, and 59 to organic heart diseases.

Of the deaths transferred from Glasgow 188 were due to digestive diseases, 112 to cancer (malignant diseases), 99 to violence, and 67 to circulatory diseases. These outward transferred deaths are again tabulated in Table VIII. of the Appendix, showing the various groups of Institutions in which such deaths occurred; 595 were registered in Poor Law Institutions, 149 in Homes, Barracks, Prisons, &c, 63 in General Hospitals, 37 in Model Lodging-houses, and 30 in Infectious Diseases Hospitals.

#### CERTIFICATION OF DEATHS.

For 1913 “The Manual of the International List of Causes of Death,” issued by the Registrar-General for England (pages 32-36), has been followed, so that comparison may be established with other large towns, and the question of uniformity in the method was discussed by the Medical Officers at a recent meeting of the British Medical Association in Aberdeen.

#### CERTIFICATION OF BIRTHS AND DEATHS IN SCOTLAND.

The writer of “The Manual of the International List of Causes of Death,” issued by the Census Bureau of the United States, observes, in his introductory paragraphs, that “the remarkable progress of what is known as the international classification of diseases and causes of death . . . could only be explained by the fact that there was a widely recognised need for national and international uniformity of classification, and that the system proposed fairly well met the demands . . . and proved capable of progressive development as these demands changed with the advance of medical knowledge.

“As late as 1893,” he continues, “no two countries in the world employed precisely the same forms and methods of statistical classification of causes of death, and this lack of uniformity rendered statistical results uncomparable. . . . At a session of the International Statistical Institute at Chicago in that year Dr. Bertillon presented, on behalf of a Special Committee appointed for the purpose, a draft classification for international use. This draft was promptly adopted, and subsequent resolutions suggested the propriety of keeping the classification abreast of scientific progress by means of a decennial revision. Two sessions of the International Commission, held in Paris in 1900, and again in 1909, bring the list to the point which it has now reached.”

So far the history of the movement, as outlined in the manual to which I have referred, but for our present purpose the interest begins in two recent changes in the method of tabulating the data on which the vital statistics of Scotland are based. These changes may be described as—

- (1) The substitution of the Public Health Administrative Area for the Registration District, or group of Districts, as the geographical unit; and

- (2) The introduction of a system of transferring births and deaths from the place of their occurrence to that of the usual place of residence of the mother or of the deceased person.

It is at this point that the revision of the International List of Causes of Death lends stimulus to the movement for uniformity and emphasis to the need for applying it on some readily understood plan.

According to the Registrar-General of England, there are no fewer than 200 "unauthorised, indefinite, and otherwise undesirable terms" more or less commonly used in death certification. In place of this the International List provides 189 separate classes of sub-titles, arranged in 14 principal groups in the following manner:—

1. General Diseases, - - - - -	59 classes of sub-titles.
2. Diseases of Nervous System and of Organs of Special Sense, - - - - -	17 " "
3. Diseases of Circulatory System, - - - - -	9 " "
4. Diseases of Respiratory System, - - - - -	13 " "
5. Diseases of Digestive System, - - - - -	20 " "
6. Non-Venereal Diseases of the Genito-Urinary System, - - - - -	15 " "
7. The Puerperal State, - - - - -	8 " "
8. Diseases of the Skin and Cellular Tissue, - - - - -	4 " "
9. Diseases of the Bones and Organs of Locomotion, - - - - -	4 " "
10. Malformation, - - - - -	1 " "
11. Diseases of Early Infancy, - - - - -	3 " "
12. Senility, - - - - -	1 " "
13. External Causes, wounds, poisonings, &c., - - - - -	32 " "
14. Ill-defined Diseases, - - - - -	3 " "

Dr. Bertillon's estimate that this list was already adopted by Governments representing 212 millions of people was formed before its adoption in this country, and there seems reasonable likelihood that during the present decade its use will have extended to all countries where registration of vital statistics is systematically carried out.

The importance of this to the progress of medical research, and especially to the progress of preventive medicine, cannot well be over-estimated. It will discount hasty generalisation based on limited data gathered from restricted areas. Interest in the geographical distribution of disease will be quickened, and knowledge of fluctuations in prevalence under different local conditions cannot but add to our knowledge of the natural history of disease.

This, I think, cannot fail to be realised in the many classes of infectious disease which fall within Group I. (General Diseases) of the International List; but even those diseases which have definite anatomical associations, and form the classes included within one or other of the physiological systems which constitute the majority of the other groups, are likely to yield information of like value when their incidence among peoples of widely different history and contrasted states of social development are able to be compared.

Even so, however, the adoption of the International List will not of itself bring this about unless there is some common agreement as to the method of using it.

The International Committee of 1900 had this in view, and issued certain rules to guide the selection of the class into which the death should be placed, when, as occurs in about one half of the cases, two or more diseases are jointly stated as the cause thereof. These have not been universally adopted; the reason in England being that they would involve a break in the continuity of the statistical returns without compensating advantages.

Following, however, the example of the United States Census Bureau, the English Registrar-General has issued a Manual, with rules for guidance in the selection of the dominant disease in such cases, so that it may be said a beginning has been made in the process of adaptation which will in time produce a greater uniformity than now exists.

The order of preference in the selection of causes when two or more are jointly stated as the cause of death is indicated in Rule 3, which is as follows:—

1. Violence (Nos. 155-186),
2. General disease (Nos. 1-59),
3. Local disease (Nos. 60-149),
4. Ill-defined causes of death (Nos. 187-189),

whereas for diseases or conditions associated with early infancy and old age (Nos. 150-154) special instructions are given in Rule 8. Difficulty in selection may sometimes arise as between a general and a local disease, but the chief difficulties are likely to occur when one of two local diseases must be selected, and the following samples may serve as illustrations. They have not been taken at random, but are selected because of differences in the numbers tabulated under particular groups by the Registrar-General on the one hand and locally using the English Manual as a guide:—

1. *Deaths Associated with Rickets*, such as broncho-pneumonia, bronchitis, or meningitis. According to Rule 5 of the English Manual, the general disease “Rickets” would, in these circumstances, be selected as the group to which the death belongs. Our local figures suggest that in Scotland the local disease is preferred by the Registrar-General.

2. *Valvular Disease of the Heart; Rheumatism*.—Rheumatism as a term is starred in the rules, and consequently is subject to further inquiry by the Registrar-General. The supplementary information thus obtained would in all probability determine whether the disease is to be included among general diseases under rheumatic fever or allocated to local diseases—in this case the diseases of circulation.

3. *Gastro-Enteritis and Meningitis*.—When both diseases are mentioned without duration the death would, I think, according to the English Manual, fall into diarrhœa and enteritis (Nos. 104-105) as a local disease of the digestive system, being the first disease shown, while meningitis in Scotland would, I think, be taken in preference to diarrhœa. A similar observation may also, I think, be made regarding gastro-enteritis and pneumonia, the latter being preferred in Scotland. On the other hand, bronchitis and congestion of the lungs occurring in combination with epidemic diarrhœa would, according to Rule 9, Column “A,” be regarded in England as a disease of the digestive system (Nos. 104 or 105, according to age), and I am not sure that the same grouping would not be adopted in Scotland in this case.

I should explain that our practice, down to and including 1912, in dealing with certificates containing two causes of death, was to take that which was first stated, save where one of them was an infectious disease.

For 1913 we have endeavoured to follow the rules in use in the General Register Office, England, for the selection of one from two or more jointly stated causes of death, and a few samples of the results will supply illustration of the need for obtaining some definite guide for the construction of local Returns.



Cause of Death.	Old Method (Local Classification).	New Method (Local Application of Rules of English Manual).	Reg. Gen. (Scotland).
Influenza, - - - - -	71	92	32
Pneumonia, - - - - -	1,612	1,615	1,777
Bronchitis, - - - - -	1,153	1,092	1,267
Other Respiratory Diseases, - -	292	295	261
Diarrhoea and Enteritis, - - -	753	833	751
Circulatory Diseases, - - - -	2,047	1,814	1,496
Cerebral Hæmorrhage (Apoplexy), -	744	733	879
Meningitis (not Tuberculous), - -	199	206	236
Cancer, - - - - -	979	996	1,056

Before considering these in detail it is well to remember that local classifications of causes of death, and more especially of causes of death through affections of the various physiological systems, can scarcely ever agree numerically with classifications carried out in the Central Register Offices, for the reason that so many of them are starred for reference to the certifying practitioner for further information, and that this information, which may affect the final placing of the particular death, is not communicated to the Medical Officer of Health.

Apart from this, however, the illustrations quoted will serve to show how far we are at present from being able to avoid two sets of mortality figures for the same area. The total deaths will correspond in number, as will also the number of deaths from many of the infectious diseases, but there is something more than a risk that discrepancies in the other groupings will be frequent and considerable.

If, for example, one takes the figures for influenza and pneumonia in the foregoing list, there is an excess of 102 in the total, but 60 of those might be explained by a transference from influenza to pneumonia. Similarly, if one compares the relative prevalence of both diseases in Ireland and Scotland, and includes other forms of respiratory diseases, there would appear to be differences in method of classification which suggest that pneumonia in Scotland is relatively more fatal than in Ireland, while the other diseases of respiration are less so. Taking, as illustration, the male deaths between 1906-11 in both countries, one finds a fair degree of similarity in their annual numbers ascribed to influenza, pneumonia, and other respiratory diseases taken together, but influenza would appear to be rapidly decreasing as a cause of death in Scotland, while its prevalence in Ireland as well as England is fairly maintained.

There is more than a passing interest in the question, for pneumonia has been increasing in Scotland during the whole period of active sanitation, and in the last decade had a rate of 145, compared with 90 per 100,000 in the 70's decade.

In view of this discrepancy, one turns to the International List, where influenza is included among the general diseases of Group I., while pneumonia of all forms, save tubercular, are grouped under diseases of the

respiratory system as a local disease. And among the rules adopted in England for selecting one from two or more jointly-stated causes of death, it is stated, in Rule 5, that, with a few exceptions, of which pneumonia is not one, any general disease is to be preferred to any local disease, so that, where influenza and pneumonia are both stated, death would be ascribed to the former. We know that the term influenza is often loosely applied, and there is undoubtedly a good deal to be said for selecting any definitely-stated disease in preference thereto, but the object of the International List is to promote uniformity in tabulation, and a common agreement between Central and Local Authorities as to the application of the List is highly desirable.

I select cancer as the next illustration of discrepancy. The difference here shown is plus 60, as returned by the Registrar-General, and probably results from the number of starred forms under 46 "A," "B," and "C" of the List, regarding which further information is sought by the Registrar-General from the certifying practitioner. As in all cases when the subtitle is starred for further enquiry, the result of which may, as here, displace the cause of death from one group of causes to another, the Medical Officer of Health should be informed of the result of the enquiry if it necessitates any change of grouping such as I have indicated.

Disease of the organs of circulation and cerebral hæmorrhage present difference in opposite directions, the local figure for the former being considerably in excess of the Registrar-General's, while that for cerebral hæmorrhage is less.

Both are local diseases, and as neither appear in Columns "A" or "B" of Rule 9, both fall under Rule 10, which is likely to have many interpretations. When any form of heart disease and cerebral hæmorrhage are jointly stated, preference is to be given to the former, and this has been rigidly adhered to locally, so that part of the differences may thus be explained.

The illustrations might be multiplied from any of the groups other than those I have taken, but this is probably unnecessary.

The object of the International List is to secure a uniform basis for international comparison. The first step in the process is to secure uniformity in national and local returns. In Scotland we have no Manual similar to those I have mentioned as guiding the selection in England and in the United States. If, in addition to this, such additional information as is obtained regarding the starred entries in the List were communicated to the Medical Officer of Health, or, alternately, the Registrar-General were to obtain such information through the Medical Officer, many of the discrepancies which seem to me inseparable from the present method would, I think, become rapidly reduced.

#### INFANT MORTALITY.

3,706 deaths of infants under one year occurred during 1913, which is equal to a death-rate of 129 per 1,000 births. This is 7 per 1,000 above the rate for last year.

Of these deaths, 3,261 were of legitimate, and 420 of illegitimate, children, representing rates of 121 and 227, respectively, per 1,000 births of

each class. For several years the death-rate for each class has been as follows:—

DEATH-RATE PER 1,000 BIRTHS.

			Legitimate.		Illegitimate.
1899,	...	...	143	} 137	286
1900,	...	...	145		286
1901,	...	...	141		269
1902,	...	...	126		244
1903,	...	...	132		298
1904	...	...	131	} 124	342
1905,	...	...	122		263
1906,	...	...	122		244
1907,	...	...	122		229
1908,	...	...	129		238
1909,	...	...	124	} 120	214
1910,	...	...	111		233
1911,	...	...	127		260
1912,	...	...	118		185
1913,	...	...	121		227

For both classes during several periods the death-rate has been as follows:—

Average of 5 years, 1886-90, = 143 per 1,000 births.

"	1891-95, = 146	"
"	1896-1900, = 151	"
"	1901-1905, = 139	"
"	1906-1910, = 129	"
	1911, = 136	"
	1912, = 122	"
	1913, = 129	"

Compared with several large towns, the infantile mortality in 1902-11 is as follows\*:—

						1902-1911.
<b>Glasgow,</b>	...	...	...	...	...	<b>134</b>
Edinburgh,	...	...	...	...	...	122
Dundee,	...	...	...	...	...	153
Aberdeen,	...	...	...	...	...	135
Paisley,	...	...	...	...	...	120
Greenock,	...	...	...	...	...	119
London,	...	...	...	...	...	125
Liverpool,	...	...	...	...	...	157
Manchester,	...	...	...	...	...	155
Birmingham,	...	...	...	...	...	155

In the accompanying chart the infantile death-rate in each year since 1855 is expressed as a percentage above or below the mean for the whole period 1855-1913.

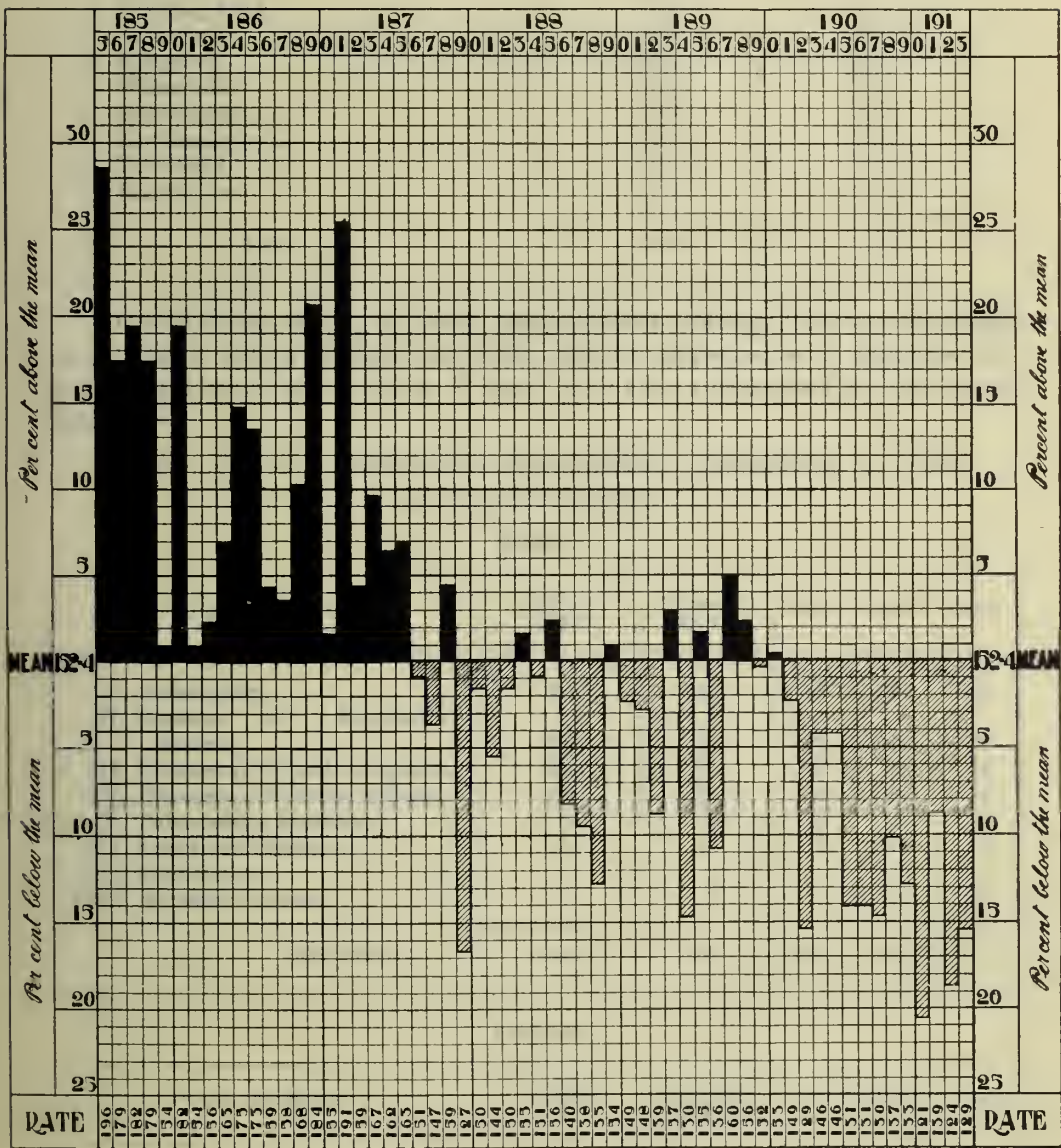
Details for each Ward for the years 1903-12 will be found in Appendix Table XVII., and a comparison of the rates shown in this Table with the death-rates from "All Causes" in Appendix Table VII. shows that Wards with death-rates from all causes in excess of the mean for the City present also the highest infantile death-rates. For convenience of reference several of the rates for the present year are shown in the Table which follows:—

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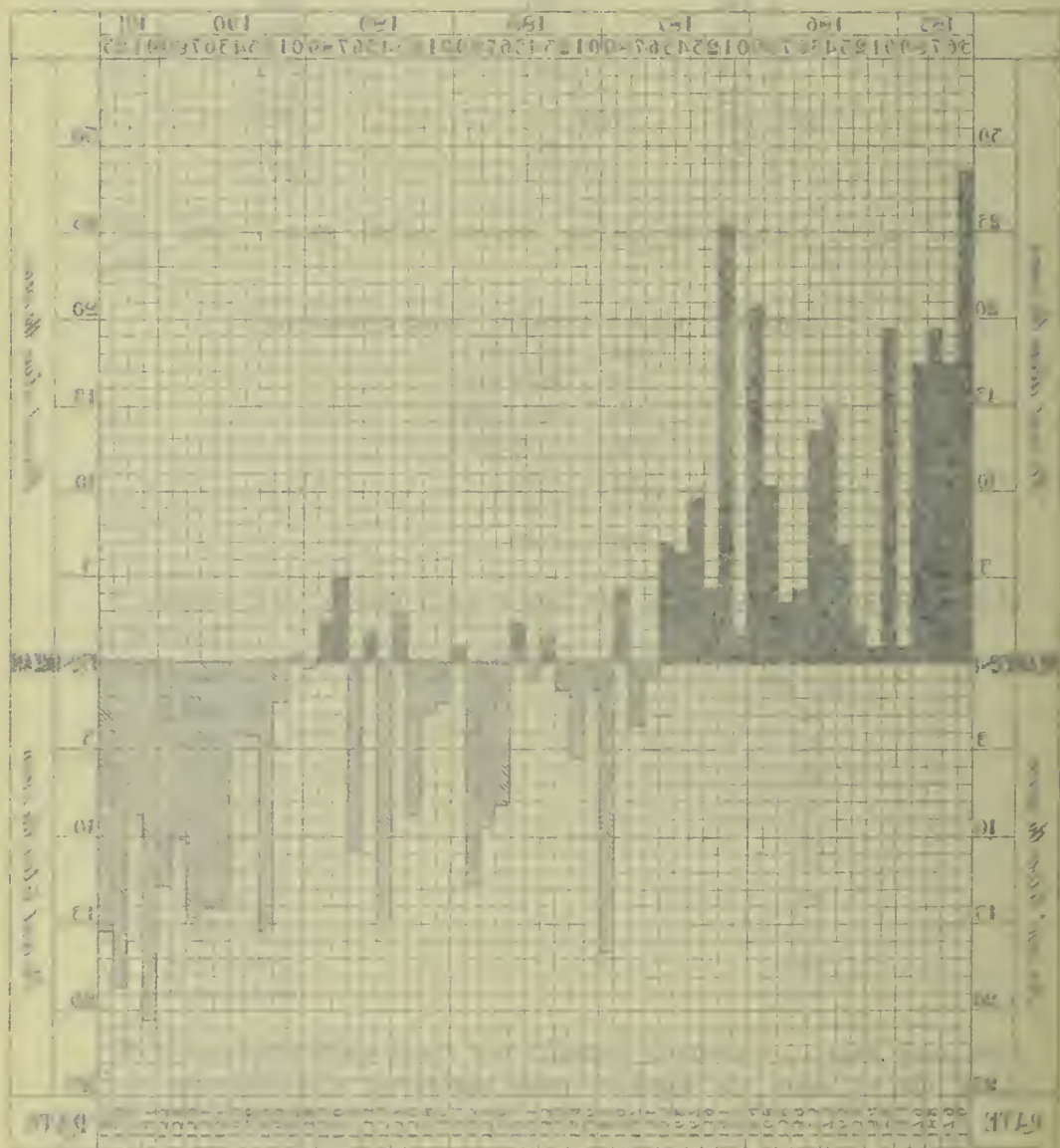
\* From Registrar-General's Annual Reports.



INFANTILE MORTALITY 1855-1913.



# INFANTILE MORTALITY 1822-1872.



GLASGOW, 1913.—GENERAL DEATH-RATE AND INFANTILE MORTALITY  
RATE COMPARED.

Wards.	Death-rate from all Causes.	Infantile Mortality.
Broomielaw, ... ..	23·8	155
Exchange, ... ..	22·9	250
Calton, ... ..	22·8	171
Cowcaddens, ... ..	21·8	179
Blackfriars, ... ..	20·0	129
Govan (Central), ... ..	19·9	163
Anderston, ... ..	19·8	137
Mile-end, ... ..	19·2	147
Kinning Park, ... ..	18·9	144
Sandyford, ... ..	18·7	169
Kingston, ... ..	18·3	143
Whitevale, ... ..	18·1	155
Dalmarnock, ... ..	18·0	146
Hutchesontown, ... ..	17·7	133
Townhead, ... ..	17·7	150
Plantation, ... ..	17·7	124
City, ... ..	17·14	129

Details of the causes of death among infants during 1913 are contained in Appendix Tables XVIII. and XIX., but for convenience of reference the group death-rates for a number of years have been summarised in that which follows:—

GLASGOW, 1903-13.—INFANTILE MORTALITY.—DEATH-RATES IN GROUPS  
PER THOUSAND BIRTHS.

MALES.

CAUSES OF DEATH.	Average 1903-5.	Average 1906-10.	1911.	1912.	1913
I. Immaturity, ... ..	49	44	45	43	46
II. Diseases of Respiratory System, ... ..	36	29	29	32	28
III. Diseases of Digestive System,	24	23	28	18	24
IV. Diseases of Nervous System,	16	11	8	10	9
V. Tuberculous Diseases, ...	6	6	7	6	6
·VI. Infectious Diseases, ... ..	15	17	17	14	19
VII. Suffocation, ... ..	1	2	2	2	1
VIII. All other Causes, ... ..	7	7	14	12	10
All Causes, ... ..	154	139	150	137	143

FEMALES.

CAUSES OF DEATH.	Average 1903-5.	Average 1906-10.	1911.	1912.	1913
I. Immaturity, ... ..	39	36	35	34	37
II. Diseases of Respiratory System, ... ..	28	23	24	25	21
III. Diseases of Digestive System,	20	19	21	14	20
IV. Diseases of Nervous System,	12	9	8	8	7
V. Tuberculous Diseases, ...	5	5	5	4	4
VI. Infectious Diseases, ... ..	15	17	18	12	16
VII. Suffocation, ... ..	1	2	1	2	1
VIII. All other Causes, ... ..	4	7	10	8	7
All Causes, ... ..	124	118	122	107	113



The diseases contained in the group "Immaturity" constitute the largest individual portion of the infant death-rate, and represent a mean rate varying between 49 and 43 per 1,000 male births, and between 39 and 34 per 1,000 female births.

It will be observed that the death-rate among males is uniformly in excess of females. The average death-rate for males during the years 1903-5 was 154, and for 1906-10 139, while the corresponding rates for females were 124 and 118.

The largest increases during 1913 occurred in the rates from immaturity and for diseases of the digestive and respiratory systems, together with those for infectious diseases.

The information regarding infant mortality in the first four weeks of life, and its relationship to ante-natal conditions, among births which were enquired into during the three years around the 1911 Census, was made the subject of a special enquiry, the result of which will be found in Appendix III. of this Report.

Similar information was collected for 1913, of which the following is a summary:—

In order to enquire more closely into the causes of death during the first four weeks of life, I have had recourse to local statistics, and submit the following summary of the death-rates in each week of this period from the causes included in the "Immaturity" group:—

GLASGOW, 1903-12.—DEATH-RATE PER 1,000 BIRTHS FROM IMMATURITY.

(1) PREMATURE BIRTH, CONGENITAL DEFECTS, AND ATELECTASIS.

(2) ATROPHY AND DEBILITY.

	1st Week.		2nd Week.		3rd Week.		4th Week.		TOTAL.	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Average, 1903-07,	14.99	5.60	2.25	1.80	1.57	1.81	0.89	1.13	19.71	10.34
	20.59		4.05		3.38		2.02		30.05	
Do., 1908-12,	16.87	3.99	2.55	1.23	1.78	1.30	0.90	1.01	22.10	7.52
	20.86		3.78		3.08		1.91		29.62	

As a complement to this I include the following figures for the same periods, showing the rates per 1,000 births from the other causes which make up the total of the deaths in the first four weeks of life:—

CAUSE OF DEATH.	Average, 1903-07.	Average, 1908-12.	Percentage Difference.
Immaturity, - - - - -	30.05	29.62	- 1
Respiratory Diseases, - - - - -	2.63	3.10	+ 18
Digestive Diseases, - - - - -	2.24	2.07	- 8
Nervous Diseases, - - - - -	2.17	1.72	- 21
Tuberculous Diseases, - - - - -	0.10	0.07	- 30
Accidents at Birth, - - - - -	0.81	0.77	- 5
Infectious Diseases, - - - - -	0.55	0.36	- 35
Syphilis, - - - - -	0.31	0.42	+ 35
Suffocation, - - - - -	0.57	0.52	- 9
Other Violence, - - - - -	0.04	0.11	+ 175
All other Causes, - - - - -	1.05	2.82	+ 169
TOTAL, - - - - -	40.53	41.46	+ 2

Among the higher rates here stated there are increase of 18 per cent. from respiratory diseases and 35 per cent. from syphilis.

During the ten years covered by this table the total infant deaths ascribed to syphilis numbered 400, 197 being males and 193 females. The proportion of these occurring in the first three months was 67 per cent., in the second three months 21, while in the second half of the first year it had fallen to 12 per cent., and the backward grading of these proportions is in keeping with what we know of the effects of syphilis in causing miscarriage.

*Pre-natal Conditions.*—Reliable information as to pre-natal conditions is extremely difficult to collect, but is most readily approached through an enquiry into the conditions precedent to still-birth. Accordingly I have taken all still-births regarding which information could be collected, and for purposes of comparison the live births attended by midwives in certain selected districts, representing two poor industrial wards, two good working-class wards, and two better-class wards of the city.

*Sex Ratio of Still-Births.*—Of 26,008 births notified during 1913, 1,266 or 4·4 per cent. were still-births. The ratio of male to female children among still-births was greater than among children born alive, being 12 to 10 in the former, and 11 to 10 in the latter. A large proportion, 40 per cent., of these still-births are said by the mothers to have been born prematurely, as against only 2·5 per cent. of the live births, but the obvious desire of the mother to explain a still-birth as premature probably discounts to some extent information obtained in this way. The figures may, however, be quoted as illustrating all that remains of substantial evidence in the matter.

*Health of Mothers.*—Here again the probable desire of the mother to find explanation of a still-birth in the condition of her own health may explain the divergence, but in the case of 1,898 children born alive fully 88 per cent. of the mothers stated they were in excellent health, whereas less than 50 per cent. of the mothers of still-born children admitted this, while 11 per cent. of the mothers of still-born children complained of bad health, as against 2 per cent. only of the mothers of live-born children.

*Previous Miscarriages.*—The importance of health of the mother gets fuller illustration when considered in relation to former miscarriages, and the following table illustrates the need for more complete knowledge of maternal health during the pre-natal stages in the uniformly larger proportion of mothers of still-born children who in former conceptions have miscarried. The foregoing figures have reference to the mothers of 573 still-births and 1,919 live-births, and in these groups the number who had former miscarriages are stated in the following table:—

Number of Previous Miscarriages.	Mothers with		Per 1,000 Mothers of each Class.	
	Still-Births.	Live-Births.	Still-Births.	Live-Births.
1	28	46	50	24
2	11	20	20	11
3	5	6	9	5
4 +	1	5	2	1

Summarising this table, it appears that 50 in every 1,000 mothers with still-births had 1 former miscarriage, 20 had 2, 9 had 3, and 2 had 4 or more, while the corresponding proportions among mothers with live-births were 24, 11, 5, and 1.

*Previous Still-Births.*—This tendency to recurrence in the same person is even more strikingly illustrated by still-birth. Among the mothers of still-born children



132 per 1,000 had 1 previous still-birth, 75 had 2, 32 had 3, 42 had 4 or more, while the corresponding ratios among the mothers of live-births are 73, 13, 5, and 5.

Number of Previous Still Births.	Mothers with		Per 1,000 Mothers.	
	Still-Births.	Live-Births.	Still-Births.	Live-Births.
1	74	138	132	73
2	42	25	75	13
3	18	9	32	5
4	10	8	18	4
5	5	—	8	—
6 +	9	1	16	1
Total Mothers,	158	181		
„ Still-Births,	338	253		

#### SUGGESTIONS FOR FURTHER ACTION.

There would thus appear to be a need for further action along three specific lines, and I place them in the order which it seems to me their importance requires:—

(a) *Clinical*.—Spencer a number of years ago carried out a most suggestive enquiry into the pathological appearances of still-births, and showed how large a proportion of these presented visceral hæmorrhages. At the time of the enquiry it was probably impossible to go beyond the suggestion that these arise from injury by pressure in the maternal passages during the process of parturition. Now, we shall ask whether these injuries resulted from any antecedent lack of vitality in the tissues of the child which made them liable to suffer from pressure in this form. There is also need for collecting information regarding the period when movement was last felt by the mothers of still-born children, with the view of determining the time-relationship of the death of the child to the actual period of its birth. The mother's health also during pregnancy is obviously of equal importance, and one welcomes the recent decision of the Local Government Board to conduct an enquiry into this on the lines suggested by the Wassermann reaction; although a recent local effort with a similar object has convinced me that mothers do not yet appreciate the importance or bearing of this.

In another direction, however, the means seem to me already available for collecting the information, and at the same time making effort to avert the misfortune of a still-birth while ensuring that some at least of the maternal risks are avoided, especially the conditions which predispose to puerperal eclampsia.

(b) *Administrative*.—In the last paragraph I have had in view the question which has so often been raised, whether the maternity benefit provided by the Insurance Act could not be so administered as to provide for the mother, during at least the later months of pregnancy, such medical guidance as the condition some-time demands.

(c) *Legislative*.—The Registration of Still-births.—Dudfield and Ballantyne especially have recently focussed the argument for the registration of still-births in a convincing manner, and I would only add that until by some such means the causes of pre-natal death can be enquired into, much of the difficulty which surrounds post-natal deaths from immaturity will remain obscure.

#### NOTIFICATION OF BIRTHS ACT, 1907.

During the year 1913, 28,840 births were registered as having been born alive within the City. After adjustment for inward and outward transference, the exact number of births credited to Glasgow is 28,688, which is the figure on which the rates shown in Appendix Table VI. are based.

Under the Notification of Births Act, 30,008 births were notified, including 1,266 still births. The ratio of live births notified to those registered is thus 99·7 per cent., as compared with 99·2 per cent. in 1911 and 1912.

In 947 cases notification was not made in terms of the Act, and a notice was in each case issued directing attention to the omission. In response to this, 849 notifications were subsequently received, and they are included in the figures already quoted. The provisions of the Act were thus voluntarily complied with in 96·8 per cent. of the total (including still-births), and in 2·9 per cent. as the result of the action taken. In one instance, where the father failed to comply with the terms of the Act even after a second notice had been sent him, a prosecution was instituted, and he was fined 7s. 6d., with the alternative of three days' imprisonment. In several cases the births were not found at the addresses at which they had been registered.

#### NATURE OF ATTENDANCE AT BIRTH.

Appendix Table XXI. shows that, of the 30,008 live and still births notified, 15,412, or 51·4 per cent., were attended medically, either at home or in institutions, while 14,596, or 48·6 per cent., had no medical attention. The percentage medically attended in the old City of Glasgow is 52·4, as compared with 36·7 in the added areas.

The number of births attended medically varies greatly in the several Wards, the maximum of 98·2 per cent. being reached in Cathcart, and the minimum of 25·9 per cent. in Broomielaw. In 19 of the 37 Wards the proportion of births not medically attended exceeded the rate for the City, 8 Wards having rates under 60 per cent., 8 between 60 and 70 per cent., while in Broomielaw, Cowcaddens, and Calton the rates exceeded 70 in the order named.

No complete register of midwives practising in Glasgow can be made, but, excluding midwives belonging to the Maternity Hospital and other institutions in the City, a list of 384 names has been prepared, mainly from information contained in the notification cards, which shows that 156 certified and 228 uncertified midwives are more or less in regular practice.

#### STILL-BIRTHS.

As already stated, the number of still-births notified during the year was 1,266, which is equal to 4·4 per cent. of the live births notified, as compared with 4·1 per cent. and 4·2 per cent. in the two preceding years.

Excluding the still-births in institutions, and comparing only those occurring at home, the percentage to births medically attended is equal to 4·2, and in births non-medically attended to 3·2. In the preceding year the proportions were 3·7 and 3·0 per cent. respectively. While there is every reason to believe that medical men are notifying the still-births occurring under their care, many midwives, it is believed, still fail to do so, and until some system of registration of still-births is instituted we shall probably always lose a proportion of the numbers actually occurring. The Ward details are shown in Appendix Table XXII.

#### INFANT VISITATION.

Under the scheme of infant visitation a female inspector visits every house in which a birth has occurred, provided we have not been informed that a medical practitioner is in attendance. 16,052 enquiry cards were accordingly returned by the female inspectors during the year. Of these, 26 proved to be

duplicate notifications, while 720 were not visited for various reasons—principally because, although the notification did not bear that a medical practitioner was in attendance, the district was not of a character which suggested that visitation was necessary. 130 had removed from the address given before the inspector called, while in 214 others, doctors were found to be in attendance. There thus remained 14,962 children not medically attended at birth who received at least one official visit after notification.

Certain information in regard to these latter children is shown in the following summary:—

	Number.	Per Cent.
Legitimate, ... ..	14,114	94·3
Illegitimate, ... ..	848	5·7
	<u>14,962</u>	<u>100·0</u>
Born at Full Term, ... ..	14,288	95·5
Premature Births, ... ..	674	4·5
	<u>14,962</u>	<u>100·0</u>

*Condition of Infant at Birth.*

	Number.	Per Cent.
Well nourished, ... ..	12,724	88·5
Fairly nourished, ... ..	1,214	8·4
Badly nourished, ... ..	451	3·1
	<u>14,389</u>	<u>100·0</u>
Still-born, ... ..	573	
	<u>14,962</u>	
Ratio of Still to Live Births, ... ..		<u>4·2</u>

*Nature of Feeding at First Visit.*

	Number.	Per Cent.
Breast, ... ..	13,425	95·7
Artificial, ... ..	503	3·6
Breast and Artificial, ... ..	105	0·7
	<u>14,033</u>	<u>100·0</u>
Still-born, ... ..	573	
Dead at First Visit, ... ..	306	
Adopted, ... ..	50	
	<u>14,962</u>	

Of the children thus visited for the first time by a member of the Female Staff, 88·5 per cent. were found to be well nourished, 8·4 per cent. were fair only, 3·1 per cent. were badly nourished.

306 children were found to have died before the Inspector visited, and of the 14,033 found alive at first visit fully 96 per cent. were being breast-fed, while for the remainder the problem of artificial feeding had already begun.

Practically one-third of the deaths occurring in Glasgow among children under one year of age arise from immaturity, a condition which after-care can do little to remedy.

As already stated, all newly-born infants not medically attended at birth are visited immediately after notification by a female Inspector, who submits a report on the circumstances of each case. In 2,283 of these children the



conditions were regarded as satisfactory, and supervision was not continued. The information contained in the report card, however, in regard to the remaining 12,679 children suggested that further observation was desirable, and these were accordingly taken up by the Health Visitors. The Health Visitors are trained nurses, who hold in addition the Certificate of the Central Midwives Board, and their duties are to advise mothers as to the feeding, &c., of infants, and in such cases as require medical advice to urge that the children be brought to the infant consultations.

Altogether the Health Visitors made 30,745 home visits during the year, with the following results:—

	First Visits.	Revisits.
Infants visited under one year of age, ...	10,568	12,078
Infants visited over one year of age, ...	88	109
	<u>10,656</u>	<u>12,187</u>
Removed and new address not traced, ...	214	856
Not found at address given, ...	37	49
Out at time of visit, ...	1,336	2,890
In hospital or nursery, ...	42	148
Dead, ...	155	368
Nurse still attending, ...	69	3
Refused admittance, ...	8	3
Doctor in attendance, ...	44	3
Visits to mothers, ...	—	178
Unable to gain admission, ...	6	20
Still-born, ...	43	—
Visits unnecessary, ...	17	1
Visits resented, ...	2	2
	<u>12,679</u>	<u>16,708</u>

Of the children found alive on the occasion of the first visit by the Health Visitor, 5,283 were classified as being well, 4,473 were regarded as fair only, while 900 were in bad condition. These may be summarised according to the size of the house occupied, as follows:—

	Well.	Fair.	Bad.	Total.
1 apartment, ...	2,192	2,054	457	4,703
2 apartments, ...	2,850	2,228	394	5,472
3 „ ...	211	173	39	423
4 „ and up, ...	30	18	10	58
	<u>5,283</u>	<u>4,473</u>	<u>900</u>	<u>10,656</u>

Generally speaking, those classified as “well” on the occasion of the first visit were not revisited, but those tabulated as “fair” and “bad” were kept under observation by the nurses, and the following Table shows a summary of the results. The second or subsequent visits total 12,187 to 5,373 children, or an average of fully 2 visits to each child.

#### VISITS.

	Much Improved.	Slightly Improved.	No Improvement.	Worse.
Fair, ...	2,941	3,024	1,761	317
Bad, ...	875	1,834	1,350	85
	<u>3,816</u>	<u>4,858</u>	<u>3,111</u>	<u>402</u>

The number of visits paid to each house depended on the urgency of the conditions, and where the nurse failed in her efforts to effect an improvement the cases were reported either for prosecution in respect of the dirty condition of the house, or to the Glasgow and Govan Parish Councils, in order that action might be taken under the Children Act in respect of the continued neglect of the children. During the year 57 cases were so reported to the Parish Councils, who under the greater powers possessed by them and their ability to take action under the Children Act were successful in many instances in effecting an improvement. The following extracts from reports to me by the Clerk to the Glasgow Parish Council illustrate the conditions in some of the cases:—

22nd February, 1913. “. . . . . Case, William K— and Martha C—, Station Road, Shettleston, . . . . I therefore advise you of this case, in view of the fact that it was my intention to prosecute these parents, both being well known to neglect their children, he drunken, and often in desertion. There appears to be an income of about 50s. per week coming into this house. I am sure you will agree with me that such a case . . . . was one for drastic measures under the Children Act for the good of all concerned.”

17th April, 1913. ———, *Weaver Street*.—“ I have yours of 10th instant. The above-named man and wife were brought to this office yesterday, and severely cautioned as to their general conduct and neglect of children. They have now promised to improve matters, otherwise we would be compelled to take proceedings against them.”

27th August, 1913. ———, *Sunnybank Street*.—“ Referring to your letter of 23rd instant, I have had this case visited yesterday by one of my assistants, who cautioned C. as to his drinking habits and neglect of wife and children. He will be kept under observation.”

28th November, 1913. ———’s *Family*.—“ Adverting to your communication of the 14th instant, regarding the above-named family, residing at — Delburn Street, I beg to inform you that both parents were arrested last night on two charges—(1) of keeping their children in a brothel, and (2) of neglecting them within the meaning of Section 12 of the Children Act, and to-day, on their pleading not guilty, the trial was fixed for the 4th proximo, at 10.15 a.m.”

\* \* \* \* \*

#### GLASGOW INFANT HEALTH VISITORS’ ASSOCIATION.

Working in association with the Public Health Department is the Glasgow Infant Health Visitors’ Association, to whom are reported children whom it is desirable to keep under observation during a longer period than is possible by the official Visitors. As this period generally extends to the first twelve months of life, a complete year must elapse before the results of the visitation can be summarised. Of infants born during the year 1912, 3,200 were reported to the Voluntary Visitors, so that the last of the infants attained the age of one year by the end of 1913. A summary of the results as at that date in the several Wards in which visitation is carried on is shown in the following Table:—



Wards.	Year old.	Removed.	Dead.	Ceased to be Visited.	Visits Un-necessary.	No In-formation.	Visits Resented.	No Visitor.	Total.
1	66	30	12	3	2	1	...	98	212
2	92	56	13	4	19	...	...	...	184
3	134	80	13	13	31	1	...	4	276
4	95	57	13	8	17	1	...	1	192
6	49	11	11	4	1	2	...	...	78
8	82	40	10	6	42	...	...	...	180
9	20	14	1	1	9	...	...	...	45
9A	27	22	9	4	18	...	...	...	80
10	1	1	2	...	...	...	...	...	4
12	25	13	4	4	3	...	1	...	50
13	118	23	13	6	9	...	...	...	169
14	88	26	10	6	6	...	...	...	136
16	316	73	48	5	5	...	...	...	447
17	122	54	16	3	7	2	...	...	204
18	79	32	16	2	91	...	1	...	221
19	112	53	30	2	1	...	...	...	198
20	87	54	21	2	4	...	...	...	168
25	121	41	14	2	10	1	1	...	190
26	68	20	12	10	11	1	...	...	122
31	4	1	...	1	...	...	...	...	6
32	23	2	...	6	...	1	...	...	32
33	4	...	2	...	...	...	...	...	6
	1,733	703	270	92	286	10	3	103	3,200

The difficulty of keeping these infants under continuous observation is illustrated by the large proportion under the heading "Removed," of whom there were no fewer than 703. In 494 other cases the child was either not visited at all—principally because of the lack of Visitors to undertake the work—or visitation was discontinued after a short interval.

The above Table may be summarised shortly as follows:—

Attained the age of one year,	...	...	...	1,733
Died during first year,	...	...	...	270
Removed,	...	...	...	703
Visits discontinued,	...	...	...	484
No information,	...	...	...	10
				<hr/> 3,200 <hr/>

Notwithstanding the frequently unsatisfactory and discouraging conditions under which the work of the Voluntary Visitors is conducted, the result is full of encouragement for the Association.

For example, out of the total 3,200 children referred to the Voluntary Visitors, 270 died during the first year, which represents a death-rate of 84 per 1,000, as compared with the average for the City as a whole of 129 in 1913, and 122 in 1912. This rate is probably understated as a number of deaths occurring during the remaining months of the first year among children who removed and were not traced, or were not otherwise visited until the children were one year old, and consequently not included in calculating the above rate.

A statement of the ratio between deaths and children visited, however, is not calculated to represent in any sense the most abiding work of the Association. The good which is done is by inspiring, stimulating, and encouraging the mothers even in such simple matters as domestic hygiene.

The following Table shows the nature of the feeding of the 3,200 children referred to above, so far as this information was available. The figures given

under the respective columns indicate the last information available as to feeding:—

	- 3 Months.	- 6 Months.	- 9 Months.	- 12 Months.	12 Months +	No In- formation.	Total.
Year old—							
Breast only, ...	...	...	...	...	377	...	377
Breast and Artificial Food, ...	...	...	...	...	781	...	781
Artificial Food only, ...	...	...	...	...	575	...	575
Removed—							
Breast only, ...	69	160	80	32	...	...	341
Breast and Artificial Food, ...	8	39	30	17	...	...	94
Artificial Food only, ...	4	31	22	11	...	...	68
No Information, ...	...	...	...	...	...	200	200
Dead—							
Breast only, ...	24	43	30	23	...	...	120
Breast and Artificial Food, ...	6	9	18	17	...	...	50
Artificial Food only, ...	1	16	10	20	...	...	47
No Information, ...	...	...	...	...	...	53	53
Ceased to be visited—							
Breast only, ...	2	20	14	17	...	...	53
Breast and Artificial Food, ...	1	2	5	18	...	...	26
Artificial Food only, ...	...	4	4	5	...	...	13
Visits unnecessary—							
Breast only, ...	78	96	25	5	...	...	204
Breast and Artificial Food, ...	8	17	11	6	...	...	42
Artificial Food only, ...	9	10	4	2	...	...	25
No Information, ...	...	...	...	...	...	15	15
No Information, ...	...	...	...	...	...	10	10
Visits resented—							
Breast only, ...	...	1	...	...	...	...	1
Breast and Artificial Food, ...	...	2	...	...	...	...	2
Artificial Food only, ...	...	...	...	...	...	...	...
No Information, ...	...	...	...	...	...	...	...
No Visitors, ...	...	...	...	...	...	103	103
	210	450	253	173	1,733	381	3,200

2,871 children were reported during 1913 to the Voluntary Visitors, but in regard to these the results will not be available until the end of the current year.

#### INFANT MORTALITY IN RELATION TO THE INDUSTRIAL OCCUPATION OF WOMEN.

The practice, which has been in operation since the adoption of the Notification Act, of reporting to H.M. Inspector of Factories and Workshops all births notified in which information is obtained that the mother was employed, was continued during last year, 1,500 having been intimated. Of these, 965 were in respect of legitimate births, and 536 in respect of illegitimate births.

#### CHILDREN ACT, 1908.

Reference has been made in previous years to the existence in the City of a number of private lying-in houses. During 1913 births, numbering in all 150, were recorded in thirty of these. Most of these children are illegitimate, and immediately after birth are handed over to the care of

foster-parents. All such births are reported to the Parish Authorities, who keep careful supervision over the children. The question arises, however, whether these houses should not be registered and placed under supervision.

Reference has already been made to the number of children reported to the Poor Law Authorities because of the neglect of their parents and the action which has followed thereon.

### INFANT CONSULTATIONS.

With the extension of the boundaries several new centres for holding infant consultations were established, and the following are now open:—

#### WEEKLY INFANT CONSULTATIONS.

				Consultations at
Monday, ...	Kinning Park Hall, West Scotland Street, ...	11 a.m.		
	7 Franklin Street, ... ..	2.30 p.m.		
Tuesday, ...	Pollokshaws Day Nursery (fortnightly), ...	11 a.m.		
	Sanitary Chambers, ... ..	11 a.m.		
	6 Washington Street, ... ..	2.30 p.m.		
	181 Claythorn Street, ... ..	2.30 p.m.		
Wednesday, ...	Ruchill U.F. Church Hall, Ruchill Street, ...	11 a.m.		
	Town Hall, Merryland Street, Govan, ...	2.30 p.m.		
Thursday, ...	168 Garngad Hill, ... ..	11 a.m.		
	Hill Street Hall, Shettleston, ... ..	11 a.m.		
	87 Campbellfield Street, ... ..	2 p.m.		
	90 Hospital Street, ... ..	2.30 p.m.		
Friday, ...	106 Maitland Street, ... ..	11 a.m.		
	15 Peel Street, Partick, ... ..	2.30 p.m.		

435 consultations for infants were held at fourteen centres during the year, 1,517 children having attended 4,211 times, an average of 2·8 visits per child.

Details of the consultations, and the number of children attending each, during the year, are shown in the following Table:—

No. of Consultations	Place.	First Attendance.	Subsequent Attendances.	TOTAL.	Average Attendance per Child.
50	Sanitary Chambers, ...	266	703	969	3·6
10	Claythorn Street, ...	15	13	28	1·9
49	Franklin Street, ...	160	302	462	2·9
47	Soho Street, ...	227	363	590	2·6
8	Shettleston, ...	21	15	36	1·7
49	Garngad Hill, ...	114	332	446	3·9
50	Maitland Street, ...	198	318	516	2·6
9	Maryhill, ...	46	30	76	1·7
50	Washington Street, ...	155	230	385	2·5
27	Partick, ...	59	60	119	2·0
47	Hospital Street, ...	163	275	438	2·7
10	Kinning Park, ...	16	5	21	1·3
25	Govan, ...	54	45	99	1·8
4	Pollokshaws, ...	23	3	26	1·1
435		1,517	2,694	4,211	2·8

Of the 1,517 children attending the infant consultations during the year, 593 were found to be in “good health,” 542 were classed as “fair” only,

while 382 were "bad." Those classed as "bad" suffered as follows:—

Birth debility, ... .. 76	Tuberculosis, ... .. 7
Prematurity, ... .. 23	Syphilis, ... .. 38
Debility and Marasmus, ... .. 37	Ophthalmia neonatorum, ... .. 58
Congenital Defects (Hydrocephalus, 1; Hare-lip, 1; Cleft-palate, 3; other Malformations, 3; Hernia and Phimosis, 3; Talipes, 1), ... 15	Whooping-cough, ... .. 14
Digestive Disorders (Improper feeding, 18; Gastritis, 5; Diarrhœa, 7; Enteritis, 19; Malnutrition, 2), 51	Chickenpox, ... .. 1
Respiratory Diseases (Bronchitis, 29; Broncho-pneumonia, 1), ... 30	Imbecile, ... .. 1
Rickets, ... .. 11	Neglect, ... .. 10
	Mastitis, ... .. 5
	Impetigo, ... .. 1
	Linco, ... .. 13
	Others, ... .. 4
	<hr/> 382

In the foregoing Table it will have been observed that of the children brought to the infant consultations, and whose state of nutrition was classified as "bad," 96, or 25 per cent., suffered from the results of venereal disease, 58 having ophthalmia neonatorum, and 38 being affected with congenital syphilis.

#### OPHTHALMIA NEONATORUM.

Ophthalmia neonatorum was made compulsorily notifiable in Glasgow for a period of three years from 1st August, 1911. On July 10th, 1913, the Corporation passed a further resolution extending the definition of ophthalmia neonatorum to include "any inflammation of the eyes accompanied by discharge in the newly-born," for the period from 9th August, 1913, to 31st July, 1914, the date on which the former Order expires. Intimation of this extension of the definition was sent to all medical practitioners and midwives practising in the City on July 29th.

One result of this extension of the definition of ophthalmia neonatorum has been to increase the apparent rate of attack from 9·6 to about 12·6 per 1,000 births.

1912.	Births Notified.	Cases, Oph. Neon.	Rate per 1,000 Births.
January-July, ...	13,183	114	8·6
August-December, ...	9,240	102	11·0
			Increase, 2·4
1913.			
January-July, ...	17,128	194	11·3
August-December, ...	11,638	171	14·6
			Increase, 3·3

There would seem to be a slight seasonal prevalence in the latter part of the year. The extension of the definition has this advantage that it brings milder forms of the disease under observation and leaves less excuse for midwives and others omitting to notify such cases. Where there appears to have been neglect to do so, the circumstances have been enquired into; and in one case where the explanation was unsatisfactory a prosecution was instituted, and the midwife in question fined in 2s. 6d., with the alternative of three days' imprisonment.



OPHTHALMIA NEONATORUM CASE-RATES PER 1,000 BIRTHS,  
ACCORDING TO NATURE OF ATTENDANCE AT BIRTH.

NATURE OF ATTENDANCE AT BIRTH.	August, 1911, to December, 1912.			1913.			TOTALS.		
	Births Notified.	Cases	Rate per 1,000	Births Notified.	Cases	Rate per 1,000	Births Notified.	Cases	Rate per 1,000
Doctors, ... ..	12,812	63	4·9	13,523	57	4·2	26,335	120	4·6
Institutions, ... ..	1,370	8	5·8	935	8	8·6	2,305	16	6·9
Inst. Nurses, ... ..	4,691	64	13·6	2,696	79	29·3	7,387	143	19·4
Midwives, &c., ... ..	12,483	159	12·7	11,612	221	19·0	24,095	380	15·8
Totals, ... ..	31,356	294	9·4	28,766	365	12·7	60,122	659	11·0

*Period at which Symptoms appear.*—The earlier recognition of the disease which notification is producing is illustrated by the following Table:—

Percentage of Cases occurring at Age—	August, 1911, to December, 1912.	1913.
— 12 hours, ... ..	4·3	15·9
— 4 days, ... ..	55·7	51·5
— 8 „ ... ..	31·5	21·0
+ 8 „ ... ..	8·5	11·6

*Association with Syphilis.*—Swabs of the discharge from eyes are being taken in an increasing number of the cases, and the association of the disease with syphilis is being observed. During the period dealt with congenital syphilis was also present in 19·8 per cent. of the cases having gonococcus, but in 8·5 per cent. only in which gonococcus was not present.

	GONOCOCCAL.			NON-GONOCOCCAL.			TOTAL.		
	Cases.	Syphilis.	Per Cent. with Syphilis.	Cases.	Syphilis.	Per Cent. with Syphilis.	Cases.	Syphilis.	Per Cent. with Syphilis.
August, 1911 to December, 1912,	92	15	16·3	123	10	8·1	215	25	11·6
1913, - - -	151	33	21·9	158	14	8·9	309	47	15·2
Totals, - - -	243	48	19·8	281	24	8·5	524	72	13·7

*Results of Treatment.*—Where cases of ophthalmia receive no medical attention, they are treated at home by the nurses of the Department, save where the home conditions are unsatisfactory or it is thought that the mothers cannot give the necessary attention. Such cases are removed to Baird Street Reception House for treatment. In a number of instances mothers have been admitted either to nurse their babies or to be themselves treated. The results

of the treatment of children during the period from August, 1911, to December, 1913, are summarised in the following Table:—

RESULT.	NON-GONOCOCCAL.		GONOCOCCAL.		SYPHILITIC.	
	Cases.	Per Cent. of Total.	Cases.	Per Cent. of Total.	Cases.	Per Cent. of Total.
Cured, - - - -	227	98·4	151	87·3	42	66·7
Corneal Defects—						
One eye good, - - -	...	...	6	3·5	1	1·6
„ „ fair, - - -	1	0·4	5	2·9	6	9·5
„ „ blind, - - -	1	0·4	5	2·9	4	6·3
Both eyes good, - -	...	...	3	1·7	...	...
„ „ fair, - - -	1	0·4	2	1·2	4	6·3
„ „ blind, - - -	1	0·4	1	0·6	6	9·5
Totals, - - -	231	100·0	173	100·0	63	100·0
SUMMARY.						
Cured, - - - -	227	98·4	151	87·2	42	66·8
Defective vision, - -	3	1·2	21	12·2	15	23·7
Totally blind, - - -	1	0·4	1	0·6	6	9·5
Totals, - - -	231	100·0	173	100·0	63	100·0

In ophthalmia due to the gonococcus the percentage of cases in which the sight was impaired was 12·2, compared with 1·2 per cent. where it was not present and 23·7 where syphilis formed a complication. The percentage of syphilitic cases becoming totally blind was 9·5, as compared with 0·6 and 0·4 per cent. for gonococcal and non-gonococcal cases respectively.

*Treatment of Mothers.*—During the year 46 mothers were admitted to Baird Street Reception House, 2 of them from addresses outside the City. Of 20 mothers with gonorrhœa admitted from August to December, 1913, 3 were dismissed cured after treatment, 1 returned three or four times for outdoor treatment, while all the others left before treatment was completed.

#### TREATMENT OF VENEREAL DISEASES.

This question is at present engaging the attention of a Royal Commission.

The attention of the Health Committee having been directed to the subject before the appointment of this Commission, the following Memorandum was prepared:—

#### RELATION OF THE PUBLIC HEALTH AUTHORITY TO THE TREATMENT OF VENEREAL DISEASES.

This subject has been brought before the Committee on Health by the Directors of the Lock Hospital, and in a letter by their Secretary and Treasurer to the Town-Clerk, of 3rd July last, it is explained that, owing to the greatly increased

number of children coming to the hospital in recent years, the Directors are placed in a very difficult position, for the following reasons:—

- (1) It is not one of the objects of the hospital to treat young children.
- (2) There is neither accommodation in the hospital for them to be treated as they ought to be, nor accommodation for the extra staff required.
- (3) The funds of the hospital are not in a position to admit of the necessarily increased expenditure.
- (4) Assuming children were refused admission, there is no institution where they could be received, nor apparently anybody who would assume this responsibility.

In a subsequent Memorandum by the Directors, the question of responsibility for the treatment of these children in the future is returned to, and for reasons therein stated, which are partly administrative, but also financial, the Directors state that they have resolved no longer to admit such children to the hospital, and that “they feel that the responsibility of providing for children must rest with the Health Committee of the City.”

I cannot help thinking that there is something inconsequential in this final expression of opinion.

The Lock Hospital was established in 1906, under a Seal of Cause from the Corporation, and its objects were, *inter alia*, the study of venereal diseases.

Moreover, the suggestion that Local Authorities should accept responsibility for the treatment of any disease which may be called infectious (there are such things, for example, as surgical and skin infection) is one which the Health Committee could not adopt without divesting itself of the power to select these diseases which seem most requiring attention in the public interest.

Apart, however, from this, the question seems to me of sufficient importance to be considered on its merits, more especially as certain results of infections of the nature of those referred to by the Lock Hospital Directors are already being dealt with by the Local Authority, and an extension of the accommodation provided for such cases to meet the particular type to which the Lock Hospital Directors refer would not prove impracticable, provided the Clerk is of opinion that this extension can properly be borne on the Public Health Assessment.

With this object, therefore, it is well to look more closely into the letter and Memoranda of the Directors.

“During the last few years there has occurred a lamentable increase in the criminal violation of young children, and many such have been brought to the Lock Hospital, because there was no other place at all suitable to which they could be taken.”

However much the Committee may regret the increase here referred to, it opens a subject entirely outwith their purview, but I hope to embody herewith some information which the Chief Constable has collected for the purpose.

The age of the children, however, is of some importance from the point of view of treatment, because the Education Authority has some responsibility for the treatment at least of some children of school age, and a grant is provided for medical treatment.

In 1909, out of 10 cases admitted under 16 years of age, 8, or four-fifths, were under 14; in 1910, of 30 cases admitted under 16, 19 were under 14; and finally, in 1911, out of 34 cases admitted under 16, 25, or nearly three-fourths, were under 14.

#### PRESENT POSITION OF HEALTH COMMITTEE WITH REGARD TO VENEREAL AFFECTION.

It will be in the recollection of the Committee that we are already taking action with regard to the effect of one form at least of the diseases with which the Lock Hospital deals. In August of last year ophthalmia neonatorum was made notifiable under the Infectious Diseases (Notification) Act, and a short experience has been sufficient to demonstrate the need not only for hospital accommodation for



some of these infants, but in some cases for the mothers also. Of 161 cases notified in the present year between January 1st and August 31st, 136 properly belonged to Glasgow, and of these, 26 infants were admitted to Baird Street Reception House for treatment, 13 of them being accompanied by their mothers. In addition to the ophthalmia with which all of the children were affected, 13 had congenital syphilis. It has some bearing also on the present question, as indicating the prevalence of the latter form of disease in the community, to state that in the period above referred to 37 infants suffering from congenital syphilis were found by Dr. Mann among the 1,054 attending the infant consultations for the first time.

Further, during last year the cause of death in 28 male and 22 female infants was frankly attributed to syphilis.

So far, we have dealt with ophthalmia in the nursery portion of the back wing of Baird Street Reception House, but the accommodation has been, on occasions, pressed, and its expansion is desirable.

This could readily be accomplished by occupying the floors of the front building, provided the cubicle partitions were removed and stored against future requirements, and the apartments used as open wards. We should thus have a total floor area of 5,773 square feet, and a cubic space of 62,043 feet, and 50 persons treated at one time would have fully 1,200 cubic feet, and 100 feet of floor area.

For present requirements, and keeping in view the mutually infectious character of the diseases referred to, this would, I think, not only be ample, but it would afford accommodation also for such children as the Lock Hospital at present treats, assuming the numbers the Directors give represent anything like the numbers who might seek treatment under the altered conditions.

A new position would thus be created, however, which the Committee should keep in view.

The treatment of disease by a Local Authority is only ancillary to other measures, and so far we have considered facilities for treatment only. Can we supplement these facilities by any measures which will help to disclose the prevalence of either of the diseases, and so ultimately tend to limit its spread. Gonorrhœa may sterilize the individual, but syphilis is a cause of true racial deterioration. We know comparatively little of its local prevalence, although there is a growing body of medical opinion, derived mostly from researches into the serum-pathology of nervous diseases, which would regard many of the degenerate changes associated with disease in early adult and middle life, as well as in infancy, as resulting from syphilitic infection not infrequently in a latent and inherited form.

Can the Committee apply to the public advantage the result of researches which are at the moment available mostly for persons under treatment in institutions of one kind or another? I believe it would help the practitioner, it would help the family, and it would, in time, I believe, help to eradicate the disease.

The tests on which these enquiries are based are wholly of a laboratory kind, known by the names of their discoverers, Wassermann and Noguchi. The transmission of material for examination would fall into line with those already sent to the laboratory, save that we should ask the practitioner sending it to state the age, sex, clinical symptoms, and apparent disease, and postal district, without the name or address of the person from whom it had been obtained. On completion of the test, the practitioner would be informed of the result for guidance in treatment.

Action on these lines would, I think, form the complement of the treatment of the children in Baird Street, and I suggest that the Committee, after considering the objects of both, instruct me to advise practitioners that facilities of the nature indicated will be provided, and that a fee of 2s. 6d. will be paid for the information supplied.



## ADDITIONS TO STAFF.

These may be stated as—

- (1) An additional assistant in the laboratory;
- (2) Two ophthalmic surgeons, to take alternate charge of the cases of ophthalmia at Baird Street, with an honorarium similar to that of the consulting surgeons at present appointed to the Fever Hospitals;
- (3) Two surgeons—one of them should be a gynæcologist—to take charge of the children to be transferred from the Lock Hospital, and the mothers of the children affected with ophthalmia neonatorum.

(Signed) A. K. CHALMERS.

Sanitary Chambers,  
Glasgow, 18th October, 1912.

## TREATMENT OF CASES.

During the year 28 children suffering from venereal disease were admitted to Baird Street Reception House for treatment. As far as possible all the children under 14 years of age, whose home addresses are within the City, recommended for treatment, and who have not been found incorrigible, were admitted. Children under 10, brought by their parents, and having a certificate from a medical practitioner, may be admitted on application at the Reception House, but in the case of children above this age admission is delayed until the circumstances of the case have been specially enquired into.

The following summary shows by whom the children were referred to us:—

Medical Mission, ... ..	6
Lock Hospital, ... ..	5
Sick Children's Hospital, ... ..	4
Police Authorities, ... ..	4
Eye Infirmary, ... ..	2
Parish Authorities, ... ..	1
	<hr/>
	22
	<hr/>

## DETAILS OF CASES ADMITTED FOR TREATMENT.

SUMMARY OF CASES ADMITTED TO BAIRD STREET RECEPTION HOUSE DURING 1913,  
AS SUFFERING FROM VENEREAL DISEASE.

Congenital Syphilis, ... ..	6
Acquired „ (Secondary), ... ..	4
Gonorrhœa ... ..	12
Urethra, ... ..	12
Cervix, ... ..	12
Tubes, ... ..	1
Eyes, ... ..	2
Non-specific, ... ..	6
Vulvitis, ... ..	4
Cystitis, ... ..	1
Vaginitis, ... ..	1
Method of infection, when recorded—	
Acquired, ... ..	1
Criminal assault, ... ..	9
Unknown, ... ..	5

3 deaths occurred among the children admitted during the year, all suffering from congenital syphilis.

#### RECORD OF ADMISSIONS AND DISMISSALS.

Admissions during year, ... ..	28
Dismissed, 15; died, 3, ... ..	18
Remaining at December 31st, 1913, ... ..	10
Average number of patients resident, ... ..	7
Average number of days resident, ... ..	74

#### WASSERMANN REACTION.

On April 17th, 1913, the Corporation of Glasgow adopted a resolution to the effect that facilities should be afforded to practitioners for obtaining a blood examination where doubt existed as to the cause of certain symptoms. It was also thought that some indication of the prevalence of syphilis might be obtained.

When arrangements to undertake this work had been made the following circular was issued:—

“ Sanitary Chambers,

“ Glasgow, 3rd September, 1913.

“ DEAR SIR,

#### “ WASSERMANN REACTION.

“ The Corporation of Glasgow, on 17th April last, adopted a resolution to the effect that facilities should be afforded to practitioners of medicine for obtaining, free of charge, in such cases as they think desirable, a blood examination by the above, or other method having a similar object.

“ I now beg to acquaint you thereof, and to say that provision has been made in the Public Health Laboratory here for carrying out the tests mentioned in the resolution.

“ When this examination is desired, application should be made to me for the requisite equipment for collecting the sample to be examined, and this should be returned to me, together with the information requested in the schedule which will accompany the equipment. It is not necessary that the name of the patient should be given, but it is essential that the age, sex, and occupation, together with the leading symptoms which are present, and the name of the Ward of the City in which patient resides, should be stated.

“ It is not thought necessary at the moment that the test should be used to confirm obvious symptoms, but that it should be had recourse to only where external manifestations of specific disease are absent, and the nature of the symptoms otherwise are obscure.

“ A fee of 2s. 6d. will be paid for each sample of blood which is forwarded for examination.

“ Yours truly,

“ A. K. CHALMERS.”

## GLASGOW PUBLIC HEALTH DEPARTMENT.

## WASSERMANN TEST.

Information to be forwarded with each sample of blood to be examined.

\**Identification No.*..... *City Ward*,.....  
*Age*,..... *Sex*,..... *Married or Single*,.....  
*Occupation*, .....  
*Apparent disease*, .....  
*Leading symptoms*—

- (a) *Nervous system.*
- (b) *Special sense organs.*
- (c) *Cutaneous system.*
- (d) *Glandular system.*
- (e) *Osseous and muscular systems.*
- (f) *Circulatory system.*
- (g) *Digestive system.*
- (h) *Genito-urinary system.*

*If blood formerly sent please say when*,.....  
*and by what medical attendant*,.....  
*State if any treatment by mercury*,.....  
*or Salvarsan*, .....  
*Physician's Name*, .....  
*Address*, .....  
*Telephone*.....

\**Note*.—It will facilitate future reference if the physician in attendance will associate the identification number with the patient's name in his Visiting List.

NO SAMPLE SHOULD BE TAKEN FROM ANY PATIENT WHO IS UNDER THE INFLUENCE OF MERCURY.

*Date*,.....19.....

## WASSERMANN TEST.

Samples of blood for examination may best be obtained in the following way:—  
*Quantity of blood required for the test*—5 to 10cc.

*Apparatus supplied*—

- (1) Small tube containing sterilised needle.
- (2) Large tube, stoppered and sterilised, for collection of blood.

*Collection of specimen for test*—

- (a) **BLOOD FROM VEIN.** Carefully wash and sterilise hands; wash and sterilise patient's skin over flexure of elbow. Fix tourniquet or bandage round upper arm to obstruct venous but not arterial flow; insert needle into prominent vein; collect at least 5cc. blood in large tube—controlling flow by pressure on rubber tubing.

Withdraw needle under pad of cotton wool moistened with antiseptic; remove tourniquet, elevate arm, and seal puncture with collodion or apply bandage over antiseptic pad.

Carefully stopper large tube and replace needle in small tube.

- (b) CERE BRO-SPINAL FLUID, by lumbar puncture. Place patient on side with knees drawn up; wash and carefully sterilise skin. Introduce needle slightly below and to one side of the spinous process which is on a level with the iliac crests directing it slightly upwards and inwards. Collect about 10cc. fluid in large tube and carefully stopper. Replace needle in small tube.

*Note.*—In forwarding specimen to the laboratory either by messenger or by post, care should be taken to have the tubes packed and protected in the manner in which they were sent out.

Owing to the quantity of blood sent in for examination in a large percentage of cases being quite inadequate, the following additional circular letter was sent to medical practitioners:—

“Sanitary Chambers,  
“23 Montrose Street,  
“Glasgow, 12th December, 1913.

“DEAR SIR OR MADAM,

“WASSERMANN TEST.

“In about 10 per cent. of the samples of blood sent for investigation the quantity has been much less than the 5cc. asked for, and quite insufficient to enable the test to be carried out. I am advised by the Clerk that in these cases no fee can be paid, as the requirements of the schedule have not been complied with; but before putting this into operation it seems desirable to acquaint practitioners of the difficulty of getting satisfactory results with smaller quantities than are mentioned in the schedule accompanying the outfit, and of the Clerk's view that no fee can be paid when the requirements are not complied with.

“Yours truly,

“A. K. CHALMERS.”

The following figures refer to a special analysis which was made of the information available of blood sent to the laboratory for examination between September 13, 1913, and June 25, 1914. The figures to which the following analyses apply relate to the applications made for outfits, summarised as follows:—

Total issued,	...	...	...	...	...	953
Returned not used,	...	...	...	...	72	
Sample insufficient,	...	...	...	...	16	
Outstanding,	...	...	...	...	114	
					<hr/>	202
Samples examined,	...	...	...	...	...	<hr/> 751 <hr/>

					Positive.	Negative.	Percentage Positive.
Source of blood sent in for examination:—							
Private practitioners,	...	...	...	...	119	173	40·8
Institutions, &c.,	...	...	...	...	164	295	35·7
					<hr/> 283	<hr/> 468	<hr/> 37·7 <hr/>

Among the Institutions sending most samples may be mentioned:—

					Positive.	Negative.	Total.
Sick Children's Hospital,	...	...	...	...	61	152	213
Lock Hospital,	...	...	...	...	48	46	94
Barnhill Hospital,	...	...	...	...	20	10	30



The following Table indicates the apparent diseases, according to age and sex, of the persons from whom positive bloods were obtained:—

APPARENT DISEASE.	MALE.								FEMALE.							
	-5	-15	-25	-35	-45	-55	55+	Total.	-5	-15	-25	-35	-45	-55	55+	Total.
Syphilis, - - -	4	1	5	30	10	...	1	51	4	6	10	12	9	4	...	45
Chancre, - - -	...	...	...	6	...	...	...	6	...	2	13	6	2	1	...	24
Gonorrhœa, - - -	...	...	3	2	1	...	...	6	...	...	3	1	1	1	1	7
Skin Eruptions, - -	2	1	...	3	...	1	...	7	...	...	...	1	...	...	...	1
Other Skin and Throat Affections, Ulcers, &c.,	2	...	...	5	3	4	1	15	...	2	...	6	...	...	...	8
Enlarged Glands, - -	1	...	...	3	...	...	...	4	...	...	1	...	...	...	...	1
Loco. Ataxy, - - -	...	...	...	1	3	...	...	4	...	...	...	...	...	...	...	...
Other Nerve Symptoms.	...	...	...	3	3	...	...	6	...	1	...	4	...	...	1	6
Mental Defect, - -	...	1	1	3	3	1	1	10	...	2	...	...	...	...	...	2
Miscarriage, - - -	...	...	...	...	...	...	...	...	...	...	3	9	1	...	...	13
Others, - - - -	1	1	...	7	5	2	...	16	3	6	...	3	2	1	...	15
Not stated. - - -	...	...	...	3	3	2	...	8	3	4	3	11	5	1	1	28
	10	4	9	66	31	10	3	133	10	23	33	53	20	8	3	150

In 13 instances where positive bloods were taken from mothers it was definitely stated that the reason for sending the specimen was because of a syphilitic child, in two cases of epileptic children, and in one case of premature birth. Where the leading symptoms were stated they have been classified in the following Table, the letters of the top and side headings having reference to the symptoms, similarly lettered in the Wassermann schedule, reproduced in a former page. In 125 cases only one symptom was stated, while the others had two or more symptoms mentioned. These have been indicated by the co-ordinated headings:—

	A	B	C	D	E	F	G	H
A, - - - -	22	8	5	1	1	...	1	3
B, - - - -	...	24	13	3	2	4	...	2
C, - - - -	...	...	38	13	5	1	4	10
D, - - - -	...	...	...	15	2	1	2	12
E, - - - -	...	...	...	...	2	2	1	...
F, - - - -	...	...	...	...	...	4	...	...
G, - - - -	...	...	...	...	...	...	8	...
H, - - - -	...	...	...	...	...	...	...	12
	22	32	56	32	12	12	16	39

The following observations\* by Dr. W. M. Elliot, Senior Resident Physician at Ruchill Hospital, on the occurrence of the Wassermann reaction in the serum of children of the poorer classes, is of interest, though the percentage of positive results cannot, on the small numbers enquired into, be taken

\* Published in the *Glasgow Medical Journal*, May, 1914.

as representative of the mass of the population. It indicates the large number of people affected:—

This series of Wassermann reactions was commenced with a view to ascertain whether the wasted and unhealthy condition so often found in the children of the poorer classes had a syphilitic basis.

With this object in mind the cases were at first selected, the reaction being tried in the above class of child only, but after a number had been examined with consistently negative results, the field was widened and the serum of every child admitted to either of two wards—one receiving cases of measles and the other cases of whooping-cough—was examined. These wards were chosen because the children admitted to hospital suffering from these two diseases are almost entirely drawn from the poorer districts of the City. In all, 130 children were examined, repeated experiments being done on many individuals.

The method of carrying out the test used in every case was that recommended by Browning and Mackenzie.\*

In reading the results, the standards laid down by the above-mentioned authors were adopted, namely, the deviation of three to five doses of complement with lecithin *plus* cholesterin in excess of that deviated with lecithin alone indicating a probably positive result, and more than five doses in excess an undoubtedly positive result.

The cases have been divided into three classes, having reference to the general condition of the children, namely, "Poor," "Good," and "Fair."

I. The "Poor" class consists of children who were ill-nourished, pale and flabby, and who often had sores about their mouths and noses.

II. The "Good" class consists of children who were apparently healthy, that is to say, they were well-nourished, had a good colour, and no sores or discharges.

III. The "Fair" class contains those cases which do not fall into either of the other two, *e.g.*, a well-nourished child having aural or nasal discharge.

This classification of the cases has divided them into three practically equal groups, Class I. containing 43, Class II. containing 45, and Class III. containing 42 members.

The results in the various divisions with regard to the nature of the reaction, and to whether symptoms of congenital syphilis were exhibited or not, are shown in the following tables:—

#### CLASS I. (POOR).

Wassermann Reaction.	Number of Cases showing <i>definite</i> signs of Congenital Syphilis.	Number of Cases showing <i>no definite</i> signs of Congenital Syphilis.
Negative. ... ..	0	35
Positive, ... ..	3	3
Probably Positive, ... ..	0	2
	3	40

#### CLASS II. (GOOD).

Negative, ... ..	0	41
Positive, ... ..	1	2
Probably Positive, ... ..	0	1
	1	44

#### CLASS III. (FAIR)

Negative, ... ..	0	36
Positive, ... ..	0	5
Probably Positive, ... ..	0	1
	0	42

\* "Recent Observations in the Diagnosis and Treatment of Syphilis."

Four cases have been classified as possessing definite signs of congenital syphilis. Three showed typical pictures of the condition, while the remaining one had an enlargement of the shaft of one tibia suggesting syphilis. All these cases gave positive Wassermann reactions.

It should be pointed out here, in passing, that the proportion of three children presenting typical pictures of congenital syphilis, and one a fairly characteristic symptom, in a series of 130 cases, is, in the experience of the hospital, extraordinarily high.

In other ten cases a definitely positive result was obtained with the reaction.

In none of these cases were there observed any symptoms or signs upon which a diagnosis of syphilis could be made. In two there was a marked degree of anæmia, but no enlargement of the liver or spleen.

In four there occurred aural and nasal discharge, either separately or in combination. In one there was seen *nebulæ* in both cornea, but not of such a nature to suggest interstitial keratitis. Of the remaining three cases, two were healthy, and one, though nothing definite was observable, was not quite healthy.

Four children gave probably positive results. None of these exhibited signs or symptoms of syphilis, but two were of interest, inasmuch as both were suffering from *cancrem oris*. In this connection it should be mentioned that a third case of *cancrem oris* has since been examined, with a definitely negative result.\*

In reviewing these results, the following observation can be made:—

One hundred and thirty children, either selected because of their unhealthiness or drawn from the poorer classes in the City, have been examined, and of these 14, or practically 10·8 per cent., show a definitely positive Wassermann reaction. If, however, the four cases presenting definite pictures be excluded on account of their representing an abnormally high proportion, the percentage of positive reactions becomes approximately 8·5.

The conclusions to be drawn from these facts are:—

(1) That poorly nourished children are not in that condition to any extent because of syphilitic infection, and treatment to improve their health need not run on these lines.

(2) That about 8 per cent. of all classes of children from the poorer classes of Glasgow give a positive Wassermann reaction, and, if this reaction is to be taken as pathognomic of syphilis, that a considerable proportion of the children of the poorer classes are infected with this disease.

3. That congenital syphilis can exist without any apparent effect on the general health of the child.

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\* As this disease is of spirochaetal origin the patients were treated intravenously with neo-salvarsan as well as surgically, but a fatal result followed in each case.



## SECTION II.

## INFECTIOUS DISEASES.

During the year 36,228 cases of infectious disease were registered and dealt with by the Department. This represents an attack-rate equal to almost 35 per 1,000 of the population, which is 4 per 1,000 less than the rate for 1912. Of the total cases registered, 9,543, or 26·3 per cent., were treated in hospital.

The varying rates of incidence in the several Wards are shown in Appendix Table XXIV., but it must be remembered that these afford an accurate attack-rate only for those diseases which are notifiable under the Infectious Disease (Notification) Act. On the other hand, measles and whooping-cough are grouped with chickenpox, and a small number of cases of other diseases in the column "All others," and the rates given indicate only the cases known and dealt with. It may be further remarked that all the Ward rates in Table XXIV., with the exception of that for phthisis, are calculated on populations which include the institutional population in each Ward. In the case of phthisis, however, the institutional cases and populations have been excluded in calculating the Ward rates, although both are included when calculating the rate for the City as a whole.

The composition of the rate for the past eleven years is shown in the following Table:—

GLASGOW.—CASE-RATE PER MILLION OF THE POPULATION FOR CERTAIN ZYMOTICS AND FOR ALL CASES OF INFECTIOUS DISEASES REGISTERED. 1903-13.

YEAR.	Typhus Fever	Enteric Fever.	Continued and Undefined.	Puerperal.	Smallpox.	Scarlet Fever.	Diphtheria and Membranous Group	Cerebro-Spinal Fever.	Phthisis.	All Others.	TOTAL.
1903,	41	1,207	22	138	373	2,597	926	...	216	15,560	21,080
1904,	34	800	39	113	1,108	2,003	824	...	998	14,875	20,794
1905,	67	569	37	137	5	1,235	924	...	1,659	20,379	25,013
1906,	12	483	76	148	4	1,721	1,580	255	1,648	17,819	23,746
1907,	6	583	36	151	1	2,180	1,510	1,237	1,619	18,945	26,268
1908,	16	741	25	149	2	3,491	1,590	300	1,531	25,223	33,068
1909,	32	707	20	135	...	5,510	2,306	101	1,483	24,841	35,135
1910,	19	427	29	142	1	5,277	2,435	58	*4,508	25,586	38,482
1911,	9	489	14	170	3	4,020	2,418	64	2,973	25,732	35,892
1912,	43	311	14	181	...	3,687	2,211	24	2,983	29,307	38,761
1913,	39	232	7	144	...	4,005	1,934	35	2,552	26,247	35,195

\* Pulmonary Tuberculosis made compulsorily notifiable.

Enteric fever was less prevalent than in any previous year. Undefined and puerperal fevers also show a reduction. The considerable increase in the rate for minor infectious diseases, which are included under the heading "All others," is largely the result of a more complete method of ascertaining the presence of these diseases.

Table XXIV., just referred to, enables a comparison to be made of the relative prevalence of notifiable and non-notifiable diseases in the several Wards. Taking both together, the incidence was greatest in Woodside, Kingston, and Mile-end, in the order named, where the rates exceeded 45 per 1,000; and least in Pollokshields, Blythswood, Kelvinside, and Park Wards, the rate in Pollokshields being over 9 per 1,000, and in Park Ward fully 19 per 1,000.

The attack-rate for the notifiable diseases for the City as a whole was almost 10·6 per 1,000, as compared with 25 per 1,000 for the diseases which



are not notifiable. Of the notifiable diseases 4·0 per 1,000 were due to scarlet fever, almost 2·5 per 1,000 to phthisis, and 1·9 to diphtheria.

The system of notification of infectious diseases by Attendance Officers of the School Board now enables the department to register all cases of measles, whooping-cough, and chickenpox occurring in the houses of scholars.

#### INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.

The cost per 1,000 of the population for Notification Fees since 1891 has been as follows:—

GLASGOW.—AMOUNT PER 1,000 OF POPULATION OF FEES FOR CERTIFICATES UNDER THE INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889, FOR SEVERAL PERIODS SINCE 1891.

Period.	Amount.		
	£	s.	d.
1891-1900 (average), ... ..	1	2	4·3
1901-1905 ( „ ), ... ..	0	15	6·5
1906-1910 ( „ ), ... ..	0	19	8·2
1911, ... ..	1	6	5
1912, ... ..	1	7	8
1913, ... ..	1	6	0·3

The increased cost, which is first shown in the 1906-10 average and became accentuated in 1911-12, is explained by the inclusion of pulmonary tuberculosis under the Notification Act in 1910, and the altered rates of payment introduced by the Pulmonary Tuberculosis Regulations, 1912.

In order to show the cost of notification, together with the monthly variation in the number of notifications received, and the proportion which “public” and “private” cases form in the totals, the following Table is inserted:—

1913.				Private.	Public.	£	s.	d.
January, ... ..	...	...	...	951	64	122	1	6
February, ... ..	...	...	...	818	41	104	6	0
March, ... ..	...	...	...	831	46	106	3	6
April, ... ..	...	...	...	752	53	96	13	0
May, ... ..	...	...	...	768	63	99	3	0
June, ... ..	...	...	...	628	51	81	1	0
July, ... ..	...	...	...	633	57	81	19	6
August, ... ..	...	...	...	814	63	104	18	0
September, ... ..	...	...	...	933	48	119	0	6
October, ... ..	...	...	...	1,188	55	151	5	0
November, ... ..	...	...	...	1,135	64	145	1	6
December, ... ..	...	...	...	1,033	47	131	9	6
				10,484	652	1,343	2	0
1912, ... ..				7,920	1,927	1,086	7	0
Increase, ... ..				2,564	...	256	15	0
Decrease, ... ..				...	1,275	...	...	...

#### PRINCIPAL ZYMOTIC DISEASES.

2,541 deaths occurred during the year from the principal zymotic diseases—smallpox, diphtheria, scarlet fever, typhus, enteric, cerebro-spinal fever, measles, whooping-cough, and diarrhœa. This represents an annual death-rate of 2·462 per thousand living, compared with 1·883 in 1912, an increase of 579 per million. In considering Appendix Table X., the diseases in connection with which this increase occurred have already been referred to on page 7. Scarlet, typhus, cerebro-spinal fever, whooping-cough, and diarrhœa of this group have each a higher death-rate in 1913; the others show lower rates.

The corresponding rates for several periods have been :—

1881-90, ... ..	3·600 per 1,000 living.
1891-1900, ... ..	3·282 „
1901-1905, ... ..	2·660 „
1906-1910, ... ..	2·450 „
1911, ... ..	2·544 „
1912, ... ..	1·883 „
1913, ... ..	2·462 „

In the following Table the rates for several towns are given on the basis of the Registrar-General's tabulation : —

#### PRINCIPAL ZYMOTIC DISEASES.

	Death-rate per 100,000. 1902-1911.					
Glasgow, ... ..	...	...	...	...	...	187
Edinburgh, ... ..	...	...	...	...	...	109
Dundee, ... ..	...	...	...	...	...	136
Aberdeen, ... ..	...	...	...	...	...	118
London, ... ..	...	...	...	...	...	172
Liverpool, ... ..	...	...	...	...	...	281
Manchester, ... ..	...	...	...	...	...	230
Birmingham, ... ..	...	...	...	...	...	225

#### EXCESSIVE FATALITY FROM NON-NOTIFIABLE DISEASES.

The deaths and death-rates from the principal zymotic diseases for each Ward are given in Appendix Tables XIV. and XV. respectively.

In the following Table the fatality from several diseases of the notifiable and non-notifiable groups of the zymotic class are shown for the Wards where the mean rate for the City was exceeded.

GLASGOW, 1913.—ZYMOTIC DEATH-RATE per MILLION in certain WARDS whose RATES EXCEED the MEAN RATE for the City.

MUNICIPAL WARDS.	Total Zymotics.	Smallpox.	Diphtheria.	Scarlet Fever.	Typhus Fever.	Enteric Fever.	Cerebro-Spinal Fever.	Menses.	Whooping- cough.	Diarrhoea and Enteritis.	Total of Last Three Columns.
Govan (Central),	4,816	...	394	131	...	88	263	2,758	700	482	3,940
Mile-end, -	4,275	...	236	236	...	22	86	688	1,353	1,654	3,695
Cowcaddens, -	4,148	...	391	150	...	60	...	511	1,684	1,352	3,547
Dalmarnock, -	3,771	...	193	174	...	77	97	986	832	1,412	3,230
Calton, -	3,735	...	289	289	87	29	...	782	1,245	1,014	3,041
Kinning Park, -	3,369	...	78	...	157	78	78	1,018	1,097	863	2,978
Kingston, -	3,160	...	155	186	...	124	31	527	1,022	1,115	2,664
Broomielaw, -	3,156	...	166	...	...	...	166	166	1,329	1,329	2,824
Anderston, -	3,138	...	214	107	...	...	36	357	1,141	1,283	2,781
Sandyford, -	3,137	...	86	259	43	...	86	602	1,117	944	2,663
Plantation, -	2,995	...	244	...	...	35	35	1,044	801	836	2,681
Blackfriars, -	2,945	...	155	52	...	103	...	827	620	1,188	2,635
Whitevale, -	2,933	...	126	158	...	31	...	757	1,104	757	2,618
Cowlairs, -	2,849	...	431	166	...	33	...	199	795	1,225	2,219
Hutchesontown,	2,833	...	153	153	...	51	51	715	766	944	2,425
Partick (Central),	2,784	...	72	145	...	...	36	1,265	651	615	2,531
Shettleston and Tollcross, -	2,679	...	147	330	...	110	...	477	771	844	2,092
Woodside, -	2,669	...	364	121	...	97	...	388	1,141	558	2,087
Ibrox -	2,549	...	49	147	...	...	49	1,030	735	539	2,304
City, -	2,462	...	181	131	6	36	34	560	729	787	2,076

From all diseases of the zymotic class the death-rate was greatest in Govan, Mile-end, Cowcaddens, and Dalmarnock, where the rates were 4,816, 4,275, 4,148, and 3,771 per million respectively, as compared with 2,462 for the City as a whole. In Calton, Kinning Park, Kingston, Broomiellaw, and Anderston the mean rate for the City was also considerably exceeded.

It will be observed that the non-notifiable diseases—measles, whooping-cough, and diarrhœa—account for almost four-fifths of the death-rate from all zymotic diseases, the rate for measles alone being 560 per million persons living, as compared with 450 per million caused by all the infectious diseases which are notifiable. The rate for whooping-cough and diarrhœal diseases together is twice the rate for the notifiable diseases.

Among the notifiable diseases diphtheria was most fatal, the death-rate therefrom having been 181 per million, while the rates from scarlet fever, enteric fever, and cerebro-spinal fever were 131, 36, and 32 per million respectively.

#### SMALLPOX.

No cases of smallpox were registered in Glasgow during the year, but contacts, mostly arriving from ports in the United Kingdom, were kept under observation until the period of incubation was up.

#### VACCINATION.

The following is a statement of the number and cost of vaccinations and re-vaccinations performed by the officers of the department, or on behalf of the Corporation, during the year 1913:—

						Primary.	Re-vaccinations.
At Office,	...	...	...	...	...	225	24
In Prisons,	...	...	...	...	...	—	1,320
„ Hospitals,	...	...	...	...	...	39	164
						<u>264</u>	<u>1,508</u>
Cost.							
Vaccinations of Prisoners,	...	...	...	...	...	£75	12 0
Cost of Lymph,	...	...	...	...	...	35	2 6
						<u>£110</u>	<u>14 6</u>

#### VACCINATION (SCOTLAND) ACT, 1907.

During the year declarations of conscientious objection to vaccination were made in respect of 6,804 children, compared with 4,371 objections made in 1912. 1,924 of the increase here is accounted for by the inclusion this year of the areas recently added to the City. The following shows the number of declarations made each year since the Act came into operation:—

1907,	...	...	...	...	...	407
1908,	...	...	...	...	...	2,183
1909,	...	...	...	...	...	2,653
1910,	...	...	...	...	...	3,231
1911,	...	...	...	...	...	3,791
1912,	...	...	...	...	...	4,371
1913,	...	...	...	...	...	6,804
						<u>23,440</u>

The number of declarations made in the several Wards during 1913 is given in Appendix Table XXVII. The maximum recorded in one Ward was in Springburn, where 516 declarations were made. It will be observed from the



Table that in each year since 1907 the number of declarations made in this Ward has been much in excess of any of the other Wards. In Dalmarnock 395 declarations were made, in Mile-end 358, in Govanhill 342, and in Hutchesontown 333.

For several years a Table, compiled from information contained in the Annual Reports of the Registrar-General regarding the vaccination of children born in the City, has been included in this Report because of the importance of the subject, although the information since 1910 is not available. For comparison the figures for several years are given below:—

GLASGOW.—TABLE SHOWING RESULTS OF PRIMARY VACCINATION OF CHILDREN BORN IN GLASGOW DURING SEVERAL YEARS.

Year.	Successfully Vaccinated.	Vaccination Postponed.	Insusceptible of Vaccination.	Died before Vaccination.	Statutory Declaration of Conscientious Objection.	Removed from District or otherwise unaccounted for.
	<i>Per Cent.</i>	<i>Per Cent.</i>	<i>Per Cent.</i>	<i>Per Cent.</i>	<i>Per Cent.</i>	<i>Per Cent.</i>
1902	84·2	0·8	0·9	10·6	—	3·5
1903	84·6	0·7	0·6	10·8	—	3·3
1904	83·4	1·2	0·7	11·0	—	3·7
1905	84·5	1·3	0·6	10·0	—	3·6
1906	82·9	0·8	0·5	10·6	0·2	5·0
1907	75·0	1·5	0·7	10·7	4·9	7·2
1908	69·5	1·7	0·8	10·8	9·2	8·0
1909	67·2	1·7	0·8	10·6	12·6	7·1
1910	64·8	1·6	0·5	9·8	16·0	7·3

Figures since 1910 not yet available.

Until 1907 the percentage of successfully vaccinated children remained fairly constant. The average was about 84 per cent. This percentage has rapidly decreased, so that in 1910 it was less than 65, the difference being mainly due to the increase in the proportion of declarations of statutory objection to vaccination, which in that year reached 16 per cent. Those appearing under the heading “Removed from District or otherwise unaccounted for,” show an increase during the last four or five years, and indicate the existence of a degree of laxity regarding vaccination which extends beyond those who take the trouble to make a formal declaration of conscientious objection.

#### DIPHTHERIA.

1,996 cases of diphtheria and membranous croup were registered during the year, compared with 1,735 in 1912, and the number of deaths was 187, as against 182. These figures represent an attack-rate of 1,934 per million living, compared with 2,291 in 1912. The death-rate, on the other hand, was 181 per million, compared with 232 for 1912. The morbidity-rate (or the death-rate per 100 cases) was 9·4, as against 10·5 per cent. in 1912. Of the total cases, 90·7 per cent. were treated in hospital.

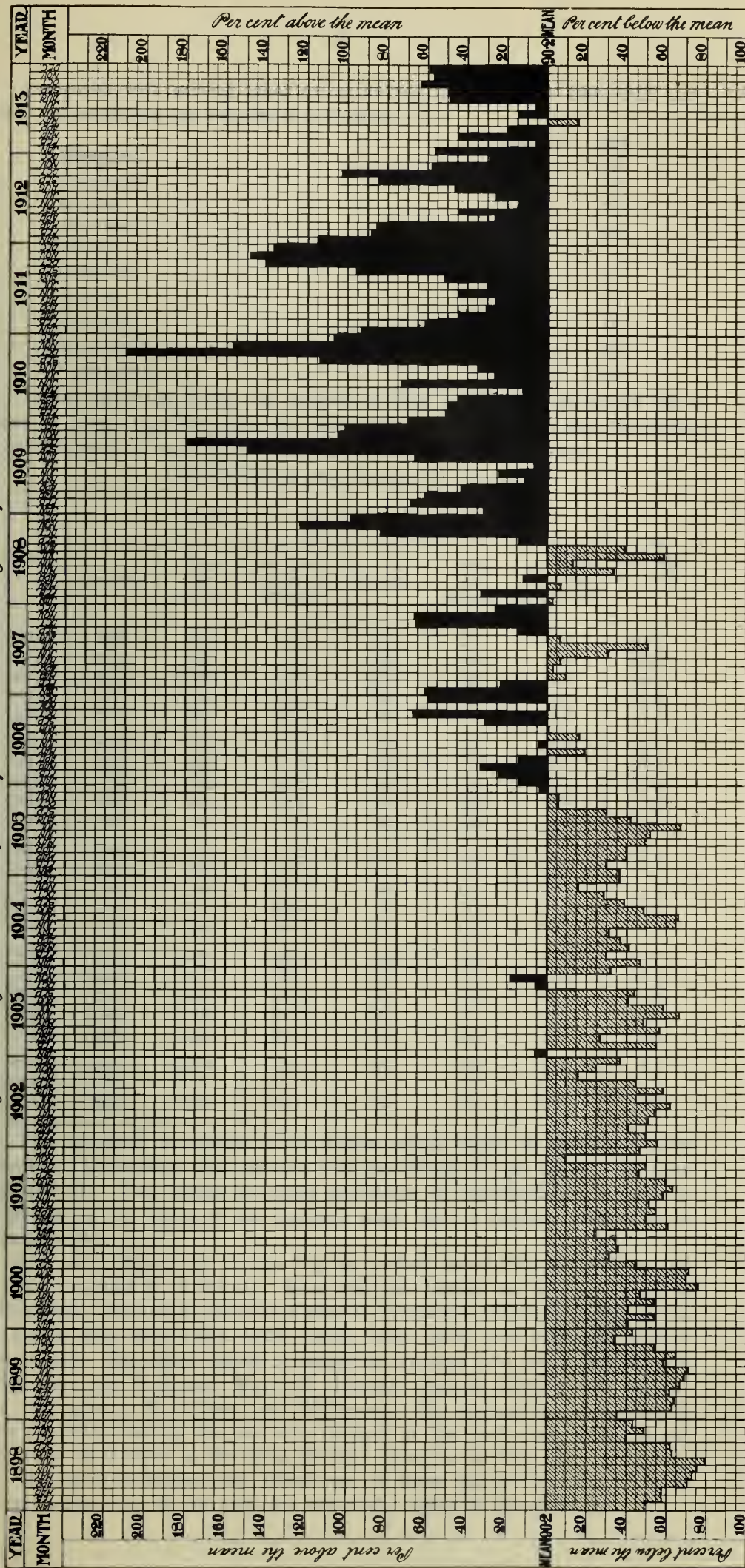
For several periods the death-rate from diphtheria in Glasgow has been—

1881-90,	...	...	·280 per 1,000 living.
1891-1900,	..	...	·231     ,,
1901-05,	...	...	·134     ,,
1906-10,	...	...	·205     ,,
1911, ...	...	...	·221     ,,
1912, ...	...	...	·232     ,,
1913, ...	...	...	·181     ,,



# DIPHTHERIA AND MEMBRANOUS CROUP.

Chart showing monthly variations of Notifications in each year from 1898 to 1913.





DIAGNOSTIC AND THERAPEUTIC

*[Faint, illegible handwritten text]*

Compared with several other towns during the ten years 1902-1911 and 1913, the death-rate per 100,000 is as follows:—

							1902-1911.	1913.
<b>Glasgow,</b>	...	...	...	...	...	...	<b>18</b>	<b>19</b>
Edinburgh,	...	...	...	...	...	...	14	10
Dundee,	...	...	...	...	...	...	20	21
Aberdeen,	...	...	...	...	...	...	12	69
Paisley,	...	...	...	...	...	...	20	5
Greenock,	...	...	...	...	...	...	16	16
London,	...	...	...	...	...	...	15	10
Liverpool.	...	...	...	...	...	...	20	10
Manchester,	...	...	...	...	...	...	18	14
Birmingham,	...	...	...	...	...	...	19	20

In the following Table, the number of cases and deaths are stated for a series of years, together with the attack-rate and death-rate, the proportion of cases treated in hospital, and the case-fatality rate in each year.

DIPHTHERIA and MEMBRANOUS CROUP.

Year.	CASES.			DEATHS.			Case-mortality per cent.
	Number.	Rate per Million.	Per Cent. treated in Hospital.	Number.	Rate per Million.	Per Cent. occurring in Hospital.	
1891	465	822	16.1	131	232	23.7	28.2
1892	575	861	14.1	195	292	15.9	33.9
1893	828	1,228	19.0	246	365	25.6	29.7
1894	967	1,414	26.1	290	424	30.0	30.0
1895	654	944	28.4	137	198	19.0	21.0
1896	601	854	31.6	116	165	30.2	19.3
1897	462	647	32.9	127	178	30.7	27.5
1898	433	592	59.6	113	154	47.8	26.0
1899	465	622	52.3	109	146	31.2	23.5
1900	540	715	59.4	125	165	44.0	23.1
1901	563	739	57.2	115	151	44.4	20.4
1902	617	794	60.1	105	135	61.9	17.0
1903	724	926	71.1	103	132	68.9	14.3
1904	647	824	69.9	91	116	57.1	14.1
1905	726	924	80.0	107	136	75.7	14.7
1906	1,270	1,580	86.5	136	169	83.1	10.7
1907	1,218	1,510	85.6	127	157	87.4	10.4
1908	1,274	1,590	84.6	144	180	86.1	11.3
1909	1,846	2,306	88.5	222	277	86.5	12.0
1910	1,939	2,435	89.8	191	240	95.3	9.8
1911	1,897	2,418	89.6	173	221	90.7	9.1
1912	1,735	2,211	90.3	182	232	93.4	10.5
1913	1,996	1,934	90.7	187	181	85.0	4.9

The increased prevalence of the disease which began in 1906 now shows a tendency to decrease, the case-rate this year being 277 per million less than that of 1912. This recent increased prevalence of diphtheria in Glasgow is illustrated in the chart on the opposite page, and is further referred to in Appendix IV.

The mean attack-rate for the City as a whole was 1,934 per million, and this was exceeded in 14 Wards. Relatively the disease was most prevalent in Pollokshaws, Jordanhill, Cowlares, Cathcart, Woodside, and Park Wards, where the attack-rates were 6,094, 4,020, 3,838, 3,625, 3,576, and 3,545 per million respectively. The other Wards in which the average rate was exceeded were Shettleston and Tollcross, Maryhill, Partick Central, Blythswood, Kelvin-side, Springburn, Blackfriars, and Whitevale. The increase in the number of cases occurring during the year was thought at first to be due to the larger proportion of children in the areas recently added to the City, but an enquiry into the age-distribution and attack-rate at these age-periods showed that, except at ages over 45, the rates are uniformly higher in the old City.

DIPHTHERIA AND MEMBRANEOUS CROUP.—AGE DISTRIBUTION OF  
CASES in OLD CITY and ADDED AREAS.

AGE	OLD AREA.		ADDED AREA.		GREATER GLASGOW.	
	Cases.	Case rate per 10,000.	Cases.	Case rate per 10,000.	Cases.	Case rate per 10,000.
— 1	64	34·3	12	20·0	76	30·8
— 5	750	106·5	222	96·9	972	104·1
— 15	842	52·9	247	47·9	1,089	51·6
— 25	213	14·0	32	7·3	245	12·5
— 45	107	4·4	30	4·1	137	4·4
— 65	18	1·5	7	2·1	25	1·6
65 +	1	0·3	—	0·0	1	0·3
All Ages,	1,995	25·2	550	23·0	2,545	24·7

Excluding Blythswood Ward, where the population is small, and in which there were only 6 cases and no deaths, the disease was relatively most fatal in Pollokshaws, where the death-rate reached 809 per million, as compared with 181 for the City. In Cowlairst the rate was 431 per million, and in Govan (Central), Cowcaddens, and Woodside it exceeded 300 per million.

The following Table shows the number of cases treated at home and in hospital in each year since 1891, as well as the deaths occurring in each group, and the case-mortality per cent. The mortality among cases treated in hospital remains fairly uniform. On the other hand, there is considerable fluctuation in the mortality of cases treated at home, the rate for the present year being 15·1 per cent., as compared with 6·6 and 8·1 in the two years preceding.

GLASGOW.—DIPHTHERIA and MEMBRANOUS CROUP.

YEAR.	TREATED AT HOME.			TREATED IN HOSPITAL.		
	Cases.	Deaths.	Case-mortality per cent.	Cases.	Deaths.	Case-mortality per cent.
1891	390	100	25·6	75	31	41·3
1892	494	183	37·0	81	12	14·8
1893	671	183	27·3	157	63	40·1
1894	715	203	28·4	252	87	34·5
1895	468	111	23·7	186	26	13·9
1896	411	81	19·7	190	35	18·4
1897	310	88	28·4	152	39	25·6
1898	175	59	33·7	258	54	20·9
1899	222	75	33·8	243	34	14·0
1900	219	70	32·0	321	55	17·1
1901	241	64	26·5	322	51	15·8
1902	246	40	16·3	371	65	17·5
1903	209	32	15·3	515	71	13·8
1904	195	38	19·5	452	53	11·7
1905	145	26	17·9	581	81	13·9
1906	172	23	13·4	1,098	113	10·3
1907	175	16	9·2	1,043	111	10·6
1908	196	20	10·2	1,078	124	11·5
1909	212	30	14·2	1,634	192	11·8
1910	197	9	4·6	1,742	182	10·4
1911	198	16	8·1	1,699	157	9·2
1912	169	12	6·6	1,566	170	10·9
1913	185	28	15·1	1,811	159	8·8



## SEASONAL PREVALENCE.

The following Table shows the seasonal prevalence of the disease over an extended period. It thus appears that the disease tends towards least prevalence in midsummer, but increases during the later months, and reaches a maximum about the late autumn:—

GLASGOW.—DIPHTHERIA and MEMBRANOUS CROUP.—NUMBER OF CASES REGISTERED and ANNUAL CASE-RATE per 100,000 LIVING for each MONTH for the PERIODS 1890-1900, 1901-1910, 1911, 1912, and 1913.

MONTH.	CASES.					ANNUAL CASE-RATE.				
	1890-1900.	1901-10.	1911.	1912.	1913.	1890-1900.	1901-10.	1911.	1912.	1913.
January, ...	652	920	174	194	171	103	137	261	291	195
February, ...	611	878	145	170	132	108	144	239	280	167
March, ...	586	836	130	168	171	93	125	195	252	195
April, ...	461	787	118	114	135	75	121	183	177	159
May, ...	444	658	114	131	103	70	98	171	197	117
June, ...	377	680	131	103	134	62	105	203	160	158
July, ...	300	548	116	114	113	47	82	174	171	129
August, ...	478	726	137	133	161	76	108	206	200	184
September, ...	608	1,012	177	167	192	100	156	275	259	226
October, ...	711	1,365	217	183	224	113	204	326	275	256
November, ...	698	1,273	224	142	216	114	196	348	220	255
December, ...	649	1,141	214	116	244	103	170	321	174	278
Year,	6,575	10,824	1,897	1,735	1,996	89	137	242	221	193

The analysis which has been made in previous years of the age distribution of cases before and after school holiday periods is again inserted.

GLASGOW, 1913.—DIPHTHERIA.—CASES NOTIFIED between May 1st and Oct. 31st, 1913, ARRANGED to SHOW the INFLUENCE of SCHOOL HOLIDAYS on CASE-INCIDENCE.

PERIODS.	Cases Notified.						Increase or Decrease.						TOTAL.
	Age, 0—5.		Age, 5—14.		Age, 14 and up.		Age, 0—5.		Age, 5—14.		Age, 14 and up.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1st { May 1 to June 30,	54	51	34	54	19	25	...	...	...	...	...	...	237
2nd { July 1 to Aug. 31,	59	58	44	46	29	38	+5	+7	+10	-8	+10	+13	274
							+12		+2		+23		
3rd { Sept. 1 to Oct. 31	82	74	72	117	26	45	+23	+16	+28	+71	-3	+7	416
							+39		+99		+4		
	195	183	150	217	74	108							927
	378		367		182								

*Age and Sex Distribution.*—In former Reports the excessive fatality of diphtheria in infants has been pointed out, and the following Table repeats the illustration:—

GLASGOW, 1913.—DIPHTHERIA and MEMBRANOUS CROUP.—AGE and SEX  
DISTRIBUTION of CASES and DEATHS, with CASE-MORTALITY.

AGE.	Cases.		Deaths.		Case-mortality per cent.	
	Male.	Female.	Male.	Female.	Male.	Female.
Under 1	43	21	20	9	46·5	42·9
2	101	88	30	20	29·7	22·7
3	90	91	13	11	14·4	12·1
4	90	77	11	13	12·2	16·9
5	115	98	10	5	8·6	5·1
10	274	345	12	23	4·4	6·7
15	92	131	1	2	1·1	1·5
20	65	55	2	3	3·1	5·5
25	23	70	...	1	3·0	1·4
35	33	46	1	...	...	...
45	8	20	...	...	...	...
55	6	12	...	...	...	...
65	1	...	...	...	...	...
65+	...	1	...	...	...	...
All Ages, {	941	1,055	100	87	10·6	8·2
	1,996		187		9·4	

*Relation of Croup to Diphtheria.*—The gradual shrinkage of croup as a cause of death, and its inclusion among true cases of diphtheria, is illustrated in the following Table, which shows the deaths and death-rates from diphtheria and croup separately and together for the period of seventeen years. By referring to former Reports the decrease over a longer period may be followed:—

GLASGOW.—DEATHS and DEATH-RATES *per Million* from DIPHTHERIA and CROUP  
from 1895 to 1911.\*

Year.	DEATHS.			DEATH-RATE PER MILLION.		
	Diphtheria.	Croup.	Diphtheria and Croup.	Diphtheria.	Croup.	Diphtheria and Croup.
1895	112	73	185	161	105	266
1896	83	54	137	118	76	194
1897	97	48	145	136	67	203
1898	103	29	132	142	40	182
1899	106	17	123	145	23	168
1900	130	19	149	175	25	200
1901	110	13	123	144	17	161
1902	106	21	127	137	27	164
1903	105	13	118	133	17	150
1904	95	9	104	119	11	130
1905	110	11	121	136	14	150
1906	147	9	156	176	11	187
1907	131	6	137	155	7	162
1908	156	3	159	180	3	182
1909	230	3	233	264	3	267
1910	202	3	205	228	3	231
1911	178	2	180	227	3	230

\* Registrar-General's Annual Report.  
Figures for 1912 not yet available.

The recent increased prevalence of diphtheria in Scotland formed the subject of enquiry for a paper which was read at Congress of the Royal Institute of Public Health, held at Edinburgh, July, 1914. This paper forms Appendix IV. of the present Report.

*Diphtheria associated with a Milk Supply.*—The following report on an outbreak of diphtheria in Shettleston District, associated with a milk supply, was submitted to the Health Committee:—

*Extract from Minute of January 14th, 1914.*

In the period between November 20th and December 4th 30 cases of diphtheria occurred among the customers of a dairy in Shettleston. 19 of the cases resided in the Mount Vernon, Springboig, and Shettleston districts of the Lower Ward of Lanarkshire, and the remaining 11 occurred in the portion of Shettleston which was recently annexed to the City.

The time and place distribution of the cases was as follows:—

Date of Sickening.	Lanarkshire.	Glasgow.	Total.
November 20.....	1 .....	— .....	1
„ 21.....	2 .....	— .....	2
„ 22.....	— .....	— .....	—
„ 23.....	— .....	— .....	—
„ 24.....	— .....	1 .....	1
„ 25.....	— .....	— .....	—
„ 26.....	4 .....	1 .....	5
„ 27.....	4 .....	2 .....	6
„ 28.....	2 .....	3 .....	5
„ 29.....	— .....	2 .....	2
„ 30.....	— .....	1 .....	1
December 1.....	4 .....	1 .....	5
„ 2.....	1 .....	— .....	1
„ 3.....	— .....	— .....	—
„ 4.....	1 .....	— .....	1
	<u>19</u>	<u>11</u>	<u>30</u>

Of the 19 cases in Lanarkshire 15 occurred in 7 households, and of the 11 cases in Glasgow 8 cases occurred in 3 households; so that in all 17 families were affected.

The age of the patients—8 males and 22 females—ranged from 8 to 60 years, only two being under 10. These families received their daily supply of milk from the same dairy in Shettleston. This dairy obtained its milk from two daily and one occasional source, the former being farms situated in the Lower Ward, and the latter a large purveyor in Glasgow. The milk from this latter source was always sterilised and was only occasional in its distribution. Towards the end of November the occurrence of 5 cases residing in Lanarkshire, and all obtaining their milk supply from one source arrested the attention of the County Officers, who communicated the facts, and on 29th November Dr. Wright and Dr. Richards (Assistant Medical Officer, Lower Ward) visited the dairy and the farms, and examined all the persons employed in the traffic.

On inquiring into the occurrence of recognised illness among them, two milk-carriers employed by the dairy stated that their parents had suffered from sore throat for the past few days, and that no doctor was in attendance. None of the farm employees admitted known illness, but the pallor and pronounced anaemia in the child of a milker in one of them, here called Farm A., so arrested attention that swabs were taken from the child, its mother, and 11 others, with the result that the child's throat was found to contain the bacillus of diphtheria. In the other farm, herein called B., two persons were engaged in the milk traffic, and of the three swabs here taken the farmer proved "positive."

With regard to the members of the dairy staff it falls to be added that, in addition to the association with sore throat in the parents of the two carriers above-mentioned, swabs from 10 carriers and 4 members of the dairy-keeper's family produced three

"positives," one of whom was the dairy-keeper herself, and the others were the two children (both carriers) whose parents had complained of sore throat. In this family all 6 members proved "positive" in the sense indicated.

#### SOURCE OF MILK SUPPLY.

From Farm A 50 gallons of milk were sent to the dairy daily, 40 gallons arriving at 6 a.m. and 10 gallons at 5 p.m. From Farm B 29 gallons were sent in one delivery, arriving at 7 a.m.

The son of the dairy-keeper acted as milk vanman. He had two rakes—the first to Mount Vernon, starting at 7 a.m., and the second to Mount Vernon, Springboig, and Budhill Districts, starting at 9.15 a.m. On the first rake four boys accompanied the van and delivered milk to the houses. None of those boys' names appear with any frequency as carriers to the invaded families, and their throats proved "negative" on bacteriological examination. The two milk-carriers, whose throats yielded "positive" results, carried milk only from the dairy, which will be seen to have had the largest number of cases.

The distribution of the cases on the van and counter traffic respectively is as follows:—

1 A. Milk by Van. 1st Rake.	2 A., B., and Sterilized Milk by Van. 2nd Rake.	3 A., Milk by Carrier only.
(L) 1 family = 1 case. (L) 1 „ = 2 cases.	(L) 1 family = 2 cases. (L) 1 „ = 1 „ (L) 1 „ = 1 „	(L) 1 family = 2 cases. (L) 1 „ = 2 „ (L) 1 „ = 4 „ (L) 1 „ = 2 „ (G) 1 „ = 1 „ (G) 1 „ = 1 „ (G) 1 „ = 2 „
2 families, with 3 cases. Number of families supplied by this rake, 46; per cent. attacked, 4.3.	3 families, with 4 cases. Number of families supplied by this rake, 70; per cent. attacked, 4.3.	7 families, with 14 cases. Number of families supplied in this manner, 138; per cent. attacked, 5.0.

#### COMBINED DISTRIBUTION.

1 and 2.	2 and 3.	1, 2, and 3.	3 and 1.
(L) 1 family = 1 case.	(L) 1 family = 2 cases. (G) 1 family = 1 case.	(L) 1 family = 3 cases.	(L) 1 family = 2 cases.

L = Lanarkshire cases.

G = Glasgow cases.

11 families affected in Lanarkshire, with 19 cases.

6 „ „ Glasgow, „ 11 „

Total, 17 families in all, - - - with 30 cases.

*First Rake.*—On this rake the milk from Farm A was taken—some 20 gallons—5 gallons of which were usually brought back to the dairy and sold. It was definitely Farm A.'s milk taken, because the vanman started on his journey just before the milk arrived at the dairy from Farm B.



*Second Rake.*—On this second rake the vanman takes those 5 gallons from Farm A, with 19 gallons from Farm B, and 7 gallons of sterilised milk. On this rake the milk is mixed, with the result that the vanman cannot state with any degree of accuracy whence the milk he sold came. Four cases occurred among those exclusively on this supply, but four others used this and the first rake milk, and three others had this milk and also milk by carrier.

*Milk-carrier Cases.*—In 14 instances the cases obtained milk solely by carrier, all of which was milk from Farm A, while eight others received it both by van and carrier.

But, whilst the number of cases was greatest on Farm A's milk, it is to be noted that most of them had milk brought by carrier from the dairy, among the employees of which no fewer than three were found to be harbouring the bacillus of diphtheria in their throats.

### ENTERIC FEVER.

239 cases of enteric fever were registered during 1913, of which 222, or 92·9 per cent., were treated in hospital. The number of deaths from the disease was 37, representing a death-rate of ·036 per 1,000 living. The case-rate for the year was 232 per million living, compared with 311 in 1912, and the case-fatality rate was 15·5 compared with 16·4 per cent. The attack-rate for the year is the lowest hitherto recorded.

For several periods the death-rate from enteric fever in Glasgow has been—

1881-90, ... ..	·230 per 1,000.
1891-1900, ... ..	·215 „
1901-1905, ... ..	·155 „
1906-1910, ... ..	·098 „
1911, ... ..	·075 „
1912, ... ..	·051 „
1913, ... ..	·036 „

The following Table gives the attack-rate and death-rate per million and the case-mortality for each year since 1891, together with the proportion of cases removed to hospital:—

GLASGOW.—ENTERIC FEVER, 1891-1913.

Year.	CASES.			DEATHS.			Case-mortality per cent.
	Number.	Rate per Million.	Per cent. treated in Hospital.	Number.	Rate per Million.	Per cent. occurring in Hospital.	
1891	784	1,386	59·8	123	218	69·9	15·7
1892	590	884	58·3	101	151	67·3	17·1
1893	703	1,043	60·9	120	178	68·3	17·1
1894	810	1,184	72·2	151	221	76·2	18·6
1895	797	1,150	74·5	122	176	73·0	15·3
1896	691	982	71·1	145	206	72·4	21·0
1897	905	1,265	74·6	174	243	78·8	19·2
1898	1,212	1,657	86·6	228	312	86·0	18·8
1899	1,080	1,445	89·4	178	238	84·3	18·4
1900	1,013	1,340	85·1	158	209	85·4	15·6
1901	1,257	1,650	85·1	210	275	80·1	16·7
1902	698	899	90·7	110	142	88·2	15·8
1903	944	1,207	92·2	142	182	91·5	15·1
1904	628	800	91·6	84	107	89·3	13·4
1905	447	569	90·8	53	67	84·9	11·9
1906	388	483	92·5	82	102	87·8	21·1
1907	470	583	92·3	92	114	88·0	19·6
1908	594	741	87·7	72	90	86·1	12·1
1909	566	707	96·5	93	116	88·2	16·4
1910	340	427	95·6	56	70	100·0	16·5
1911	384	489	93·5	59	75	86·4	15·4
1912	244	311	89·8	40	51	87·5	16·4
1913	239	232	92·9	37	36	83·8	15·5

For comparison with other towns the following particulars are given:—  
DEATH-RATE PER 100,000 FROM ENTERIC FEVER IN CERTAIN LARGE TOWNS OF  
SCOTLAND AND ENGLAND.\*

							1902-1911.	1913.
Glasgow,	...	...	...	...	...	...	11	4
Edinburgh,	...	...	...	...	...	...	4	3
Dundee,	...	...	...	...	...	...	7	4
Aberdeen,	...	...	...	...	...	...	2	6
Paisley,	...	...	...	...	...	...	9	1
Greenock,	...	...	...	...	...	...	18	8
London,	...	...	...	...	...	...	6	3
Liverpool,	...	...	...	...	...	...	13	4
Manchester,	...	...	...	...	...	...	11	7
Birmingham,	...	...	...	...	...	...	9	2

The Ward distribution of the cases and deaths is shown in Appendix Tables XXIII. and XIV. Relatively, the disease was most prevalent in Kingston, where the rate was 882 per million. Next in order of prevalence was Blackfriars Ward, where the attack-rate was equal to 509 per million, as compared with 232 for the City. In Dalmarnock, Shettleston and Tollcross, and Cowcaddens Wards the rate was 457, 431, and 405 per million; in Kinning Park the rate was 392 per million; and in nine other Wards the average rate for the City was exceeded.

The average death-rate for the year—36 per million—was exceeded in ten Wards, being highest in Kingston, Shettleston and Tollcross, and Dennistoun, where the rates were 124, 110, and 104 per million, respectively.

The occurrence of small localised outbreaks of enteric fever are reported to the Committee on Health on their occurrence, and the following were reported during the year:—

*Extract from Minute of 9th April, 1913.*

#### ENTERIC FEVER—SPREAD BY UNRECOGNISED CASES.

Two isolated groups of enteric fever afford further illustration of the spread of infection through unrecognised cases.

In the first group, the mother of the family sickened on January 31st, and was regarded as suffering from influenza. Three other members of a family, numbering six in all, aged 2, 5, and 6, sickened, two on 6th and one on 13th March. In these latter cases the symptoms were less ambiguous, and blood examinations demonstrated that all four were, or had been, affected by the disease.

In the next group the original case was a child, aged 2 years, who sickened on March 4th, with symptoms suggesting meningitis. Subsequently seven others of the household fell ill on the following dates:—20th, 21st, 23rd (two cases), 24th, 25th March, and 1st April. The ages of these latter patients varied from 5 to 17 years, and again the clinical symptoms were verified by an examination of the blood.

*Extract from Minute of 13th August, 1913.*

#### ENTERIC FEVER—BLACKFRIARS WARD.

Seven cases of enteric fever, all related to each other, and residing in the same house in Crown Street, have been removed to Belvidere Hospital, one each on 25th, 26th, and 29th, and four on 28th July.

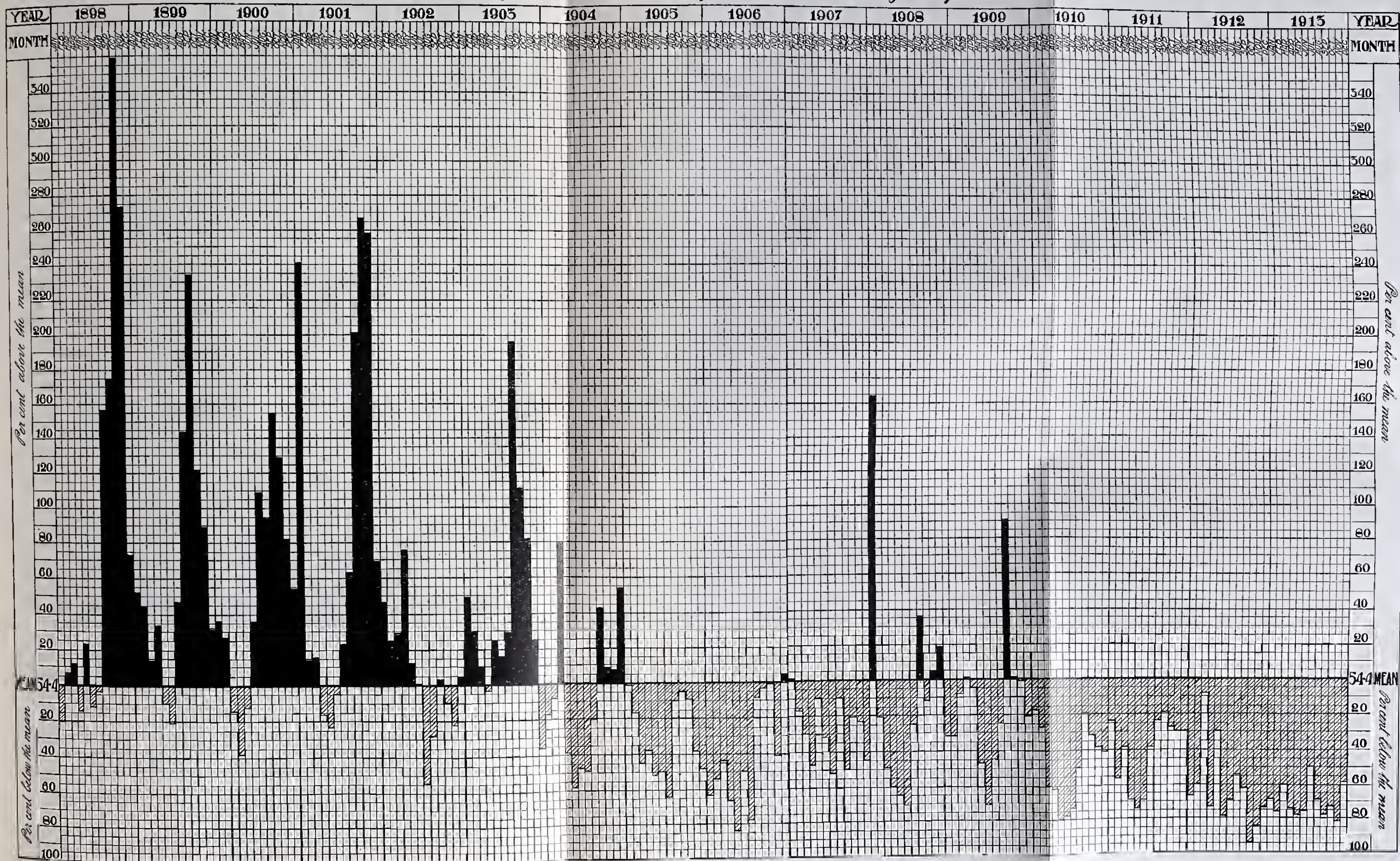
The first case notified was an unmarried niece of the householder, who sickened on 13th, was admitted to the Royal Infirmary on the 19th, and removed to Belvidere Hospital on 25th July. A second sickened on the 18th, and four others on 21st July. Another unmarried niece, aged 24 years, may be regarded as the source of infection, as she sickened on 30th June. The disease in this instance, being of a mild type, she was only confined to bed for a few days without seeking medical advice, thereafter continuing to go about until her removal to hospital on 29th July.

\* Registrar-General's Annual Report.



# ENTERIC FEVER.

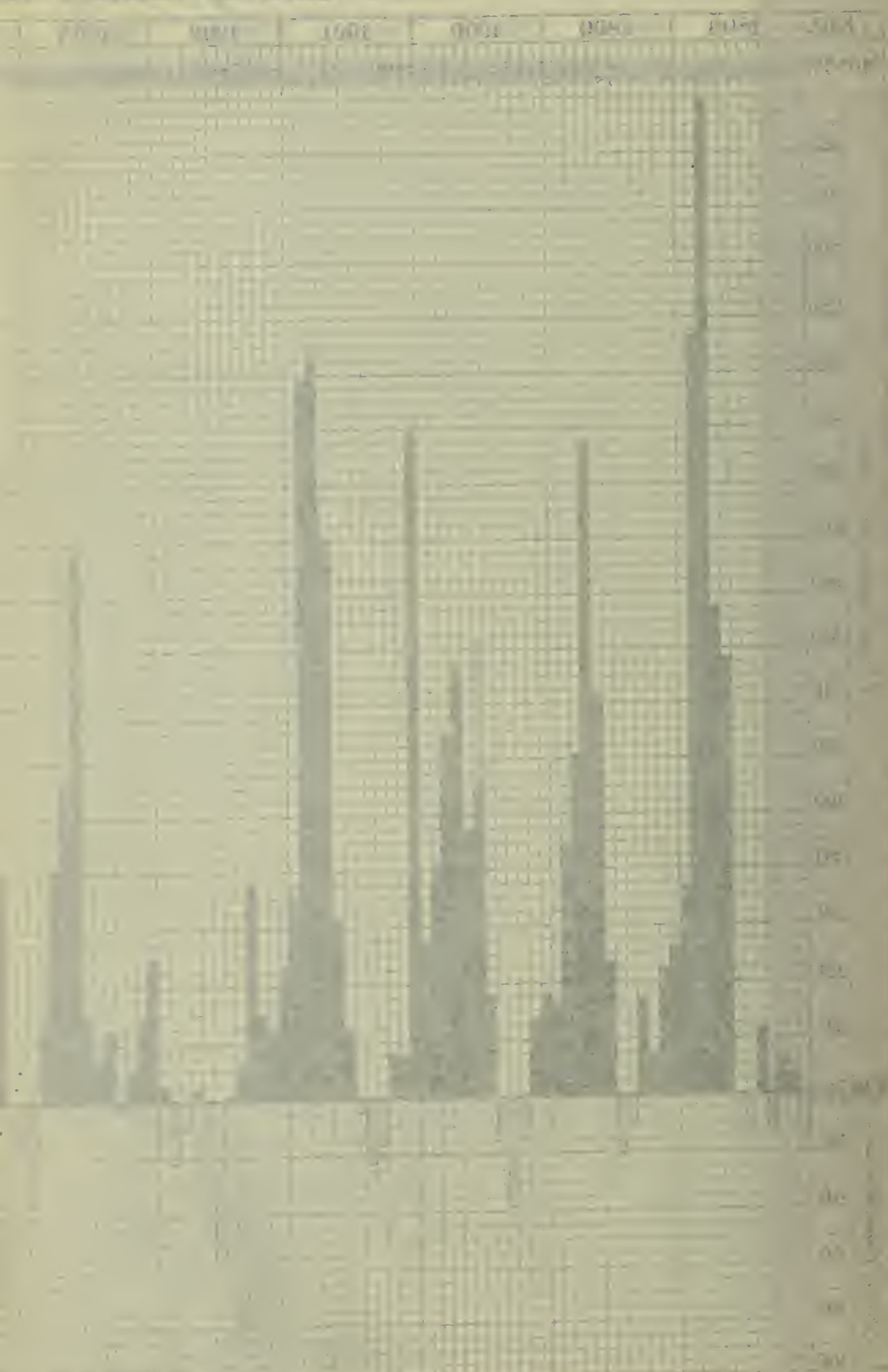
Chart showing monthly variations of Notifications in each year from 1898 to 1913





# THE EVER

1907





Numerous illustrations have been recorded in the past of the spread of infection which follows on such "missed" cases. The house was of two apartments, providing accommodation for almost 6 adults, but contained  $11\frac{1}{2}$  adults, and consequently was overcrowded to the extent of  $5\frac{1}{2}$  adults.

The following is the relationship of the various members of the household, and it forms an interesting problem in regard to the segregation of the sexes. The householder was a widow, aged 52 years. There resided in the same house an unmarried son, aged 18 years; a married son, aged 24 years, and his wife, aged 23 years; an unmarried daughter, aged 15 years; two married daughters, aged 30 and 21 years respectively—without their husbands—one with two children and the other with one child; two unmarried nieces, aged 19 and 24 years; and the householder's brother, aged 40 years.

*Extract from Minute of 14th January, 1914.*

#### ENTERIC FEVER SIMULATING PNEUMONIA.

Every now and again small groups of cases occur which illustrate both the difficulty which attends the recognition of some cases of enteric fever, and the unfortunate results which follow in the households which thereby become exposed to prolonged contact with infection.

In the present illustrations the earlier cases in one group presented symptoms which suggested to the Medical Attendant ill-defined pneumonia, and in the other intestinal catarrh, with the result that in the former all the members of the family, save an infant of one year, and in the latter 10 persons in three separate households contracted the disease.

The first case of the former group, a child of five years, sickened about October 29 and was followed by other members of the family sickening respectively on November 14 and 18 (three cases) and December 19. Only one member of the family (an infant) escaped. When the cases sickening on November 18 attracted attention, the nature of the former illnesses became suspected, and the blood being examined their precise nature was ascertained. On December 8 and 9 the cases were removed to hospital, and, as has been stated, a further sickness occurred on 19th.

#### ENTERIC FEVER SIMULATING INTESTINAL CATARRH.

This series of cases involved three families, affecting all the members of one family, four of another consisting of six members, and one of a third family consisting of five members. The first two families were relations, while the third family occupied a house on the same stair-landing as the first. The first sickness occurred on November 11, and was followed by two cases in the same family on November 30 and December 2, and a third case, a relative who stayed with the family, but who, on sickening, was returned to his own home, and thereby transmitted the disease to his own family.

Further cases in the first household followed on December 13 and 14, in the second household on December 25 and 29, while one member of the third family namely, that which had its permanent address in the same tenement as the family first affected, sickened on December 18. In this case the child was a playmate of that in the first household and a frequent visitor thereat, so that, although living on the same landing, there is no reason for regarding the water-closet as affording the means of communicating the infection seeing that another household on the same landing escaped infection. It so happened that, when the child of the second household above-noted was returned to his own home, some suspicion of enteric fever arose in the mind of his medical attendant, and the accuracy of this suspicion was thereafter confirmed.

The following Table summarises the outbreak :—

Jas. M., 3 years, Nov. 11.

Wm. M.,	- 2 yrs., Nov. 30	Jas. M'D., 15 yrs., Dec. 2	Martha K., 3 yrs., Dec. 18
Jas. M.,	- 30 ,, Dec. 2	John M'D., 17 ,, ,, 25	
Mrs. Mary M.,	24 ,, ,, 13	F. M'D., 10 ,, ,, 29	
May M.,	- 5 ,, ,, 14	Mrs. M'D., 41 ,, ,, 29	

## DEATH-RATE IN HOSPITAL AND HOME CASES COMPARED.

The following Table is again introduced to illustrate the contrast in fatality between cases treated at home and in hospital. Since 1901, with the exception of the year 1910, the mortality among cases treated in hospital has always been below the rate among cases treated at home. The number of cases so treated, however, is relatively small, and there is naturally considerable fluctuation in the mortality-rate.

## GLASGOW.—ENTERIC FEVER.

YEAR.	TREATED AT HOME.			TREATED IN HOSPITAL.		
	Cases.	Deaths.	Case-mortality per cent.	Cases.	Deaths.	Case-mortality per cent.
1891	315	37	11·8	469	86	18·3
1892	246	33	13·4	344	68	19·8
1893	275	38	13·8	428	82	19·2
1894	225	36	16·0	585	115	19·7
1895	203	33	16·3	594	89	15·0
1896	200	40	20·0	491	105	21·4
1897	230	37	16·1	675	137	20·3
1898	162	32	19·8	1,050	196	18·7
1899	114	28	24·6	966	150	15·5
1900	151	23	15·2	862	135	15·7
1901	187	42	22·5	1,070	168	15·7
1902	65	13	20·0	633	97	15·3
1903	73	12	16·2	871	130	14·9
1904	53	14	26·4	575	70	12·2
1905	41	8	19·5	406	45	11·1
1906	29	10	34·5	359	72	20·1
1907	36	11	30·6	434	81	18·7
1908	73	10	13·7	521	62	11·9
1909	20	11	55·0	546	82	15·0
1910	15	...	...	325	56	17·2
1911	25	8	32·0	359	51	14·2
1912	25	5	20·0	219	35	16·0
1913	17	6	35·3	222	31	14·0

Careful inquiry was made throughout the year as to the number of privies still existing. These were found to number 89, and served altogether 277 separate families, the distribution being as follows:—

	No. of Privies.	No. of Families.
Ward 1.—Dalmarnock, ...	2	3
„ 2.—Calton, ...	3	20
„ 3.—Mile-end, ...	3	32
„ 4.—Whitevale, ...	1	4
„ 5.—Dennistoun, ...	4	17
„ 6.—Springburn, ...	16	30
„ 7.—Cowlares, ...	22	28
„ 18.—Hutchesontown, ...	3	5
„ 20.—Kingston, ...	3	29
„ 21.—Govanhill, ...	29	75
„ 22.—Langside, ...	10	15
„ 23.—Pollokshields, ...	15	19
„ 24.—Kelvinside, ...	5	23
„ 25.—Maryhill, ...	9	16
„ 28.—Ibrox, ...	1	1
„ 29.—Govan (Central), ...	2	2
„ 30.—Fairfield, ...	9	7
„ 34.—Jordanhill, ...	45	210
„ 35.—Pollokshaws, ...	19	66
„ 36.—Cathcart, ...	5	4
„ 37.—Tollcross and Shettleston, ...	4	11
Totals, ...	210	617

## CEREBRO-SPINAL FEVER.

The number of cases of this disease registered during the year 1913 was 36, giving an attack-rate of 35 per million, as against 36 recorded in 1912, and a case-rate of 24. The deaths numbered 33, as compared with 21 in the preceding year, with a resulting death-rate of 32 per million against 27.

Tables XXIII. and XXIV. in the Appendix shows the distribution of the cases and the incidence of the disease throughout the various Wards.

## TYPHUS FEVER.

37 cases of typhus fever were recorded in 1913, and two deaths occurred. All the cases were removed to hospital. The case-rate was thus equal to 36 per million, and the death-rate to 3 per million living.

The death-rate for several periods has been as follows :—\*

1881-90,	...	...	...	...	...	040 per 1,000 living.
1891-1900,	...	...	...	...	...	016 „
1901-1905,	...	...	...	...	...	011 „
1906-1910,	...	...	...	...	...	002 „
1911,	...	...	...	...	...	004 „
1912,	...	...	...	...	...	003 „
1913,	...	...	...	...	...	036 „

Compared with other large towns, the death-rate in the ten years, 1902-1911, and 1913, per 100,000 living, was as follows :—\*

							1902-1911.	1913.
Glasgow,	...	...	...	...	...	...	0.5	—
Edinburgh,	...	...	...	...	...	...	—	—
Dundee, ...	...	...	...	...	...	...	0.5	—
Aberdeen,	...	...	...	...	...	...	1.0	—
Paisley, ...	...	...	...	...	...	...	0.1	—
Greenock,	...	...	...	...	...	...	0.8	1

Appendix Table XXIII. shows that 9 cases were registered during the year in Hutchesontown; while 10 occurred in Sandyford. 6 deaths occurred. The circumstances under which all the cases occurred were reported to the Committee on Health at the time, and the following extracts are inserted.

During the year several localised outbreaks of typhus fever occurred, the first in Govan and Kinning Park, the second in Calton and Mile-end, and the third in Anderston district. Special attention was directed to the presence of vermin, and it is interesting to note that quite a number of the cases occurring during the year were engaged in dealing in old clothes.

Special inquiry was made in all cases occurring and reported to the Health Committee and also to the Local Government Board. These reports are here reproduced.

*Extract from Minute of 26th March, 1913.*

## GOVAN AND KINNING PARK.

The occurrence of typhus fever in a nurse in Merryflats Hospital, without at first any apparent association with others, has led to the discovery of a sharp outbreak, limited at the moment to 12 cases, occurring among families living in Govan and Kinning Park.

The nurse in question sickened on 8th March, but she formed the seventh recognisable case in a series which began in December last, and of which the patients last to sicken are still under treatment. The history, as ultimately elicited, is as follows :—

(1) The first patient sickened on December 14th, and remained at home, which was in Albert Street, Govan. She had no medical attendance.

(2) The husband of the above sickened on January 7th, and was removed to Merryflats Hospital on January 28th, being then convalescent, and in a condition when recognition of the character of the antecedent illness was unlikely.

\* Registrar-General's Annual Report.



(3) A married sister of the second patient who, during his illness, frequently visited him at his house, and also after his admission to Merryflats. She sickened on February 15th, and was removed to Merryflats on 24th. She was subsequently transferred to Ruchill on the nature of the nurse's illness being declared.

(4) A dairy-keeper in the district, from whose dairy some of the patients obtained their milk supply.

(5) and (6) are daughters of No. (3), and (7) and (8) are nurses who nursed her in Merryflats Hospital.

Cases (9), (10), and (11) were inmates of a house to which the first patient removed early in February after her husband's admission to Merryflats, while case (12) is the husband of No. (3).

Four households were thus invaded, containing in all 17 persons, of whom 10 sickened. In the first patient's household the inmates numbered 2, and both were attacked. Cases (3), (5), (6), and (12) were members of a household numbering 5. Case (4) stands alone. He was an inmate of a household of 4, while cases (9), (10), and (11) were of a household of 6 persons, to whom patient No. (1) went after recovery, but presumably with her clothing in an infected condition.

The following Table shows the dates of sickening :—

Case.						Date of Sickening.
No. 1,	...	...	...	...	...	14th December, 1912.
No. 2,	...	...	...	...	...	7th January, 1913.
No. 3,	...	...	...	...	...	15th February, 1913.
No. 4,	...	...	...	...	...	4th March, 1913.
No. 5,	...	...	...	...	...	6th March, 1913.
No. 6,	...	...	...	...	...	6th March, 1913.
No. 7,	...	...	...	...	...	8th March, 1913.
No. 8,	...	...	...	...	...	13th March, 1913.
No. 9,	...	...	...	...	...	14th March, 1913.
No. 10,	...	...	...	...	...	18th March, 1913.
No. 11,	...	...	...	...	...	22nd March, 1913.
No. 12,	...	...	...	...	...	22nd March, 1913.

*Extract from Minute of 9th April, 1913.*

In the previous fortnightly report attention was drawn to an outbreak of typhus fever in Govan and Kinning Park.

Another case has occurred in Kinning Park in a woman, aged 25 years, who sickened on 20th March. Although this patient resides in the immediate neighbourhood of some of the former cases, no connection can be established between them, other than that the family of the present patient obtained milk from the dairy in which case (4) of the former group was employed—patient herself being the purchaser and visiting the dairy.

*Extract from Minute of 13th August, 1913.*

CALTON AND MILE-END WARDS.

Dr. Wright has prepared the following notes in a series of cases occurring principally in Calton and Mile-end Wards :—

On 13th July two cases of typhus fever were removed from different houses at the same address in James Street, Calton, *i.e.*, Mrs. D., aged 39 years, and T. M'I., aged 13 years, sickening respectively on 2nd and 6th July. As the interval between the onset of those illnesses was only four days, this suggested a common source of infection, and in making inquiries in this direction it was learned that Mrs. H., aged 26 years, residing in another house at the same address, had been removed to an institution in the City on 21st June, supposed to be suffering from pneumonia,

and had died there on 26th June. This woman sickened on 16th June. Although her condition at the time presented some difficulty in diagnosis at the institution, there is now every reason to believe that from the outset of her illness she was suffering from typhus fever. This view is further supported by the fact that the interval between her sickness and removal to hospital, and the sickening of the above two cases, corresponds with the incubation period of that disease. Mrs. H. having been buried on 30th June, her husband, aged 31 years, and two children removed to his mother's house, Cedar Street, off Garscube Road, where he sickened on 13th July, and was removed to Belvidere Hospital on 15th July as suffering from typhus fever, the remainder of the household being the same day transferred to South York Street Reception House and the house disinfected.

On 20th July this man's sister, M. H., aged 21 years, was removed from the Reception House to Belvidere Hospital, suspected to be developing the same disease, this being subsequently confirmed in hospital.

On 30th June, fourteen days after Mrs. H. fell sick, A. M'C., aged 14 years, having sickened on 22nd June, was removed to Belvidere Hospital from Struthers Street, an adjoining street in Calton, as suffering from enteric fever, the diagnosis later being changed to typhus fever. Subsequently three other members of this family developed typhus fever, *i.e.*, M. A. M'C., aged 16 years, J. M'C., aged 22 years, and Mrs. M'C., the mother, aged 45 years, sickening respectively on 12th, 13th, and 20th July, being removed to hospital—two on the 17th and one on 21st July.

A. C., aged 25 years, residing at James Street, Mile-end—some distance further east—who visited on 22nd June the aforementioned institution while Mrs. H. was an inmate there, and also viewed the dead body of Mrs. H. at James Street, Calton, on 29th June, sickened on the 14th, and was removed from his home address on 21st July to Belvidere Hospital as suffering from enteric fever. Next day this was proved to be typhus fever.

Mrs. A. S., aged 44 years, and M. S., aged 17 years, were removed from other addresses in James Street, Calton, the former on 25th and the latter on 26th July, both having sickened on 16th July, and are now definitely suffering from typhus fever.

It is now proved, although denial has been made, that Mrs. A. S. frequently visited Mrs. D.—one of the first two cases, who sickened on 2nd July, being removed to hospital on 13th July—while Mrs. D. lay ill at home. In connection with the last case mentioned above, namely, M. S., although she denies acquaintanceship with any of the cases, it is significant that her brother was a playmate with the boy T. M'L., who sickened on 6th and was removed on 13th July.

*Source of Infection.*—Mrs. L., mother of Mrs. M'C. and Mrs. H., may be regarded as the original source of this outbreak of eleven cases, as she was ill in bed for over a fortnight previously to Mrs. H.'s sickening, Mrs. H. attending her until recovery, and Mrs. H. immediately thereafter developing the disease herself. Mrs. L., therefore, sickened about the end of May, her daughter, Mrs. H., and granddaughter, A. M'C., sickening respectively on 16th and 22nd June. This corresponds with the incubation period of the disease. Mrs. L. was employed in collecting second-hand clothing, and selling it at the Old Clothes Market. She denies ever having stored them at home, and no such articles were found in the house at the time of disinfection.

In all, seven households have been invaded, eleven cases occurring; six being relations and four frequent visitors to the infected households.

Most of the houses were dirty and verminous, the cases themselves being extensively flea-bitten, and in three instances infested with body lice.

It was found necessary to remove forty-six contacts to the Reception House.

A twelfth case, J. B., aged 38 years, having sickened on 12th July, was removed to Belvidere Hospital on 19th July from Lyall Street, Springburn. No connection can be established between him and any of the preceding cases.

*Extract from Minute of 27th August, 1913.*

#### ANDERSTON OUTBREAK.

In the report for the fortnight ending 9th August attention was directed to the occurrence of twelve cases of typhus fever in Calton, Mile-end, and Springburn Wards. Since then no further cases have occurred in Calton, but one each has occurred in Mile-end and Springburn.

The Mile-end patient was a boy, J. M'K., aged 13 years, residing at James Street, who sickened on 4th, and was removed to hospital on 6th August. No contact can be discovered between him and the previous case, which occurred in the same street, and was removed to hospital on 21st July, but the interval between them suggests that such exists.

The case which occurred in Lyall Street, Springburn, was the wife of the twelfth case mentioned in last fortnight's report. She sickened on 28th July, while under observation in South York Street Reception House.

*Case in Yoker.*—An Italian boy, aged 14 years, who resided in Yoker, sickened on 25th July, and was admitted to the Western Infirmary on 2nd August. He was transferred to Knightswood Hospital on the 5th as enteric fever, but on the following day was recognised to be suffering from typhus fever, and the Medical Officer of Health for Renfrewshire advised thereof.

*Townhead.*—Two cases have also occurred in Townhead—J. S., aged 14 years, and W. S., aged 7 years, brothers, being removed from Parson Street on 9th and 11th August. The former sickened on the 5th and the latter on 10th August. No association can be established between those cases and the others.

*Anderston.*—On 14th August attention was directed to the occurrence of cases in Anderston district, by the removal of three patients from the Western Infirmary to Ruchill, under notification of infectious disease, probably scarlet fever. These were members of a family residing at 65 Richard Street, Anderston, and were recognised as typhus fever after admission to Ruchill. Inquiry at their place of residence disclosed the fact that they were grandchildren of a woman who had died at home on July 22nd, under certificate of pneumonia, and inquiry into the associates of the family led to the discovery of further cases at 45 and 61 Richard Street. On visiting the family at 65 Richard Street the mother was found to be ill, and after the remaining members of the family had been removed to the Reception House, two other children were removed to hospital in a febrile state, which in one of them developed into typhus fever.

On the recognition of these cases a house-to-house visitation of the district was begun, and a further case, without any obvious association at the moment, was found at 88 Richard Street. These eight cases are all definitely typhus fever, but five other persons from the same district have been placed under observation because of the presence of a certain degree of fever, without, however, any other symptom of typhus fever at the moment.

*Question of Association with Calton Cases.*—The question whether these Anderston cases can be related to those formerly occurring in Calton is at present being inquired into, but all that is known at the moment is that the case at 45 Richard Street was a visitor at the house of 92 Richard Street, where the assumed pneumonia occurred in July, and was acting as foster-mother to the illegitimate child of a daughter of one of the Calton patients referred to in the report for the fortnight ending 9th August.

*Résumé.*—The principal facts connected with these several groups of cases, so far as at present known, may be thus summarised:—

In all, we are dealing with six areas where typhus fever cases have occurred, namely, Calton, Mile-end, Parson Street (Townhead), Lyall Street (Springburn), Cedar Street (off Garscube Road), and Richard Street. The cases at Cedar Street, and one of those in Mile-end, are definitely associated with those occurring in Calton, while one of the Mile-end cases, together with those in Springburn and Townhead, appear to stand by themselves.

The possible connection between the Anderston and the Calton cases has already been referred to.



A distribution of this character suggests some method of diffusing infection supplementing that of direct human contact, and the more recent researches in America \* regarding the part played by body lice in spreading the disease to a large extent determine the methods to be adopted for its suppression. The outbreak, indeed, is sufficient warrant for a vigorous effort to reduce the number of verminous persons and clothing in our midst.

The original case in Calton, who had recovered before the nature of the illness was recognised, was a dealer in old clothes, and the mother of the illegitimate child referred to was also similarly occupied. Inquiry regarding the possibility of these second-hand clothes dealers having taken any clothing to Anderston has been made, with negative result, but body vermin may become detached from the clothing in which they breed and carried on the person or clothing of a third person, and the transference of the disease become thereby accomplished. An instance of this character would readily supply a connection between the Calton and Anderston cases.

*Administrative Measures Adopted.*—As has been mentioned, house-to-house visitation was at once begun round known centres of infection, and, as already stated, some cases were discovered thereby.

Next in importance to immediate removal to hospital of persons suffering from the disease is the isolation of contacts, and arrangements have been made to set free all the Reception House accommodation for this purpose should it be required.

A special inquiry is also being conducted into the whole question of the traffic in second-hand clothes and among rag-dealers and rag stores, so far as bearing on the transference of vermin, and with special reference to the present distribution of the disease.

*Verminous Persons and Clothing.*—The legal provisions for dealing with these are fortunately ample. Mainly reliance must be placed on the provisions of the Public Health (Scotland) Act, 1897, Section 40; the Glasgow Corporation (Police) Order Confirmation Act, 1904, Sections 9 and 15, and on the Education (Scotland) Act, 1908, Section 6. Action under these sections is now being taken, in the following manner :—

(1) A house-to-house visitation in the affected areas is being carried out by the Sanitary Inspector's staff, for the purpose of discovering and dealing with verminous persons and clothing; and

(2) the School Board, through Dr. Roberts, their Medical Officer, will carry out a similar inquiry with regard to verminous school children.

The possibility of vermin being acquired by cleanly persons in using popular methods of locomotion, and also in visiting places of entertainment, is to be remembered; and the practice of the Tramway Department in cleansing and disinfecting the cars daily will prove a valuable auxiliary to the other methods adopted for controlling the spread of the disease.

*Extract from Minute of 10th September, 1913.*

Three cases of typhus fever occurred during the fortnight ending 6th September, two of them being the parents of the child L. L., who was removed to hospital on 16th August from 88 Richard Street. Both parents sickened while under observation; although, in the mother's case, she had been transferred to Belvidere on 18th August—two days after her removal to the Reception House—to nurse an infant of 14 days, who had developed measles. The mother's temperature rose abruptly on the morning of the 27th August, while the rash appeared on 1st September, her last contact with infection being on 16th August—that is, 11 days before the beginning of the fever and 16 days before the rash appeared. Her husband sickened on 3rd September, or 18 days after his last exposure to infection.

The third case occurred in a woman, aged 36, residing in Marlborough Street, who was removed to Belvidere on 29th August, certified enteric fever, but was recognised next day to be ill of typhus fever. Her sickness dates from 22nd August, and no association can be established between her and the other cases occurring.

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\* "Collected Studies in Typhus Fever" (*Hygienic Laboratory Bulletin*, No. 86).

Patient's occupation consisted of collecting clippings from tailors' workshops, which she sold to a rag-store keeper in Millroad Street. Her house was of one apartment, occupied by two adults and three children, and was both dirty and verminous.

*Extract from Minute of 14th January, 1914.*

A man, aged 46, a carter by employment, was removed to hospital on 15th December, suffering from typhus fever. He had been residing in a model lodging-house in the Eastern district of the city for about nine months, and was in the employment of a farming contractor, but worked at Provanmill Gas-works for over a year. He was last at work on Saturday, 6th December, although the subsequent development of symptoms was neither rapid nor severe, so that he was able to go about until the 15th of the month.

It should be here remarked that a considerable degree of doubt is thrown on this history by the subsequent development of symptoms in hospital, which suggest that on admission he was only five days ill.

There was no history of previous illness among any of the other inmates of the model lodging-house suggesting earlier cases, and a similar absence of illness seems to have obtained at the gas-works. Two male contacts, who attended him during his period of illness in the "model," have been placed under observation in the Reception House.

The gravity of the occurrence among the model lodging-house population suggested the need for a circular to all lodging-house superintendents, acquainting them with the facts as known, and asking them to be on the outlook for any cases of illness of obscure origin.

### SCARLET FEVER.

The number of cases of scarlet fever notified during 1913 was 4,134, representing an attack-rate of 4.0 per thousand of the population living. 3,921 of the cases, or 94.8 per cent., were treated in hospital. The deaths numbered 135, representing a death-rate of 131 per million living, and a case-fatality rate of 3.3 per cent.

The decrease in the death-rate from the disease since 1881 has been as follows:—

Average of 10 years, 1881-90,	...	...	...	490 per 1,000 living.
" 10 " 1891-1900,	...	...	...	295 "
" 5 " 1901-1905,	...	...	...	111 "
" 5 " 1906-1910,	...	...	...	121 "
1911,	...	...	...	116 "
1912,	...	...	...	93 "
1913,	...	...	...	131 "

Compared with other large towns, the death-rate for several periods has been as follows\* :—

							Death-rate per 100,000.	
							1902-1911.	1913.
Glasgow,	...	...	...	...	...	...	11	13
Edinburgh,	...	...	...	...	...	...	10	12
Dundee, ...	...	...	...	...	...	...	10	8
Aberdeen,	...	...	...	...	...	...	7	20
Paisley, ...	...	...	...	...	...	...	15	2
Greenock,	...	...	...	...	...	...	20	23
London, ...	...	...	...	...	...	...	9	4
Liverpool,	...	...	...	...	...	...	27	8
Manchester,	...	...	...	...	...	...	16	13
Birmingham,	...	...	...	...	...	...	19	21

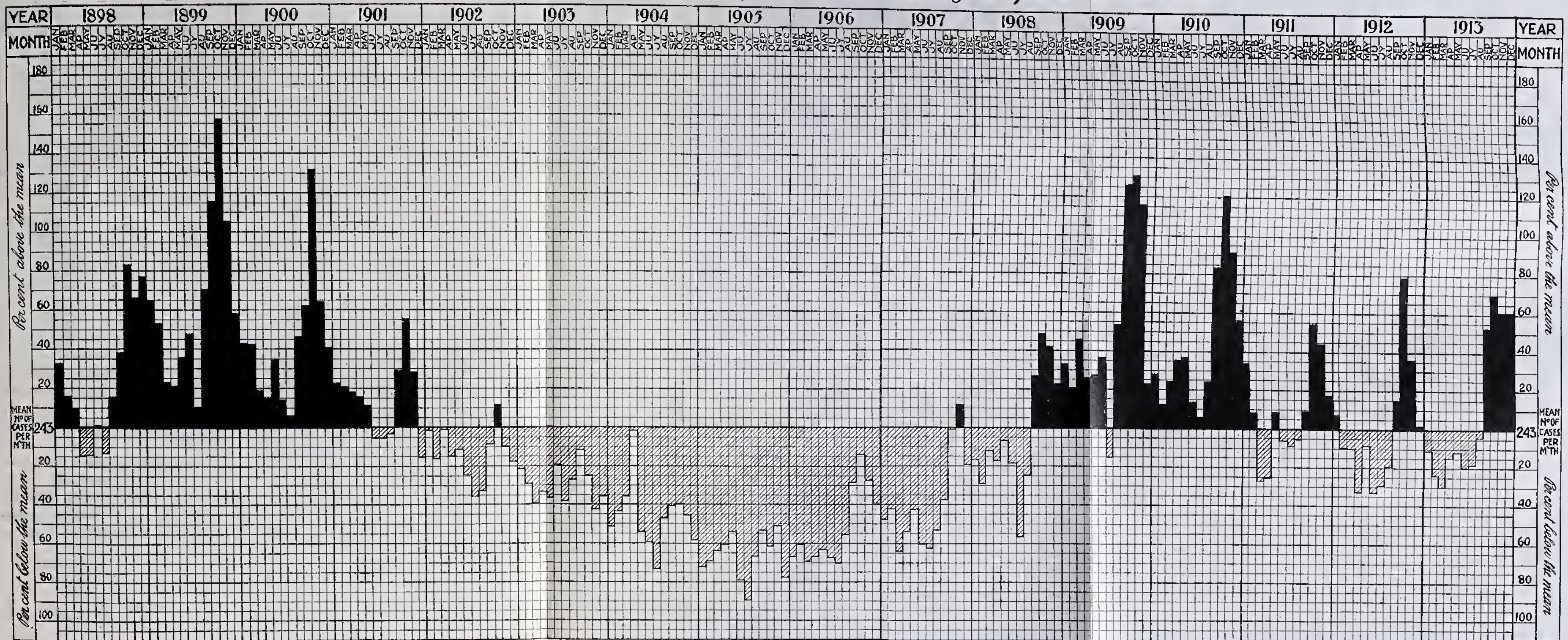
The number of cases registered, with the proportion treated in hospital, the proportion of deaths occurring there, and the case-mortality for each year

\* Registrar-General's Annual Report.



**S C A R L E T F E V E R.**  
*Chart showing monthly variations of Notifications in each year from 1898 to 1913.*

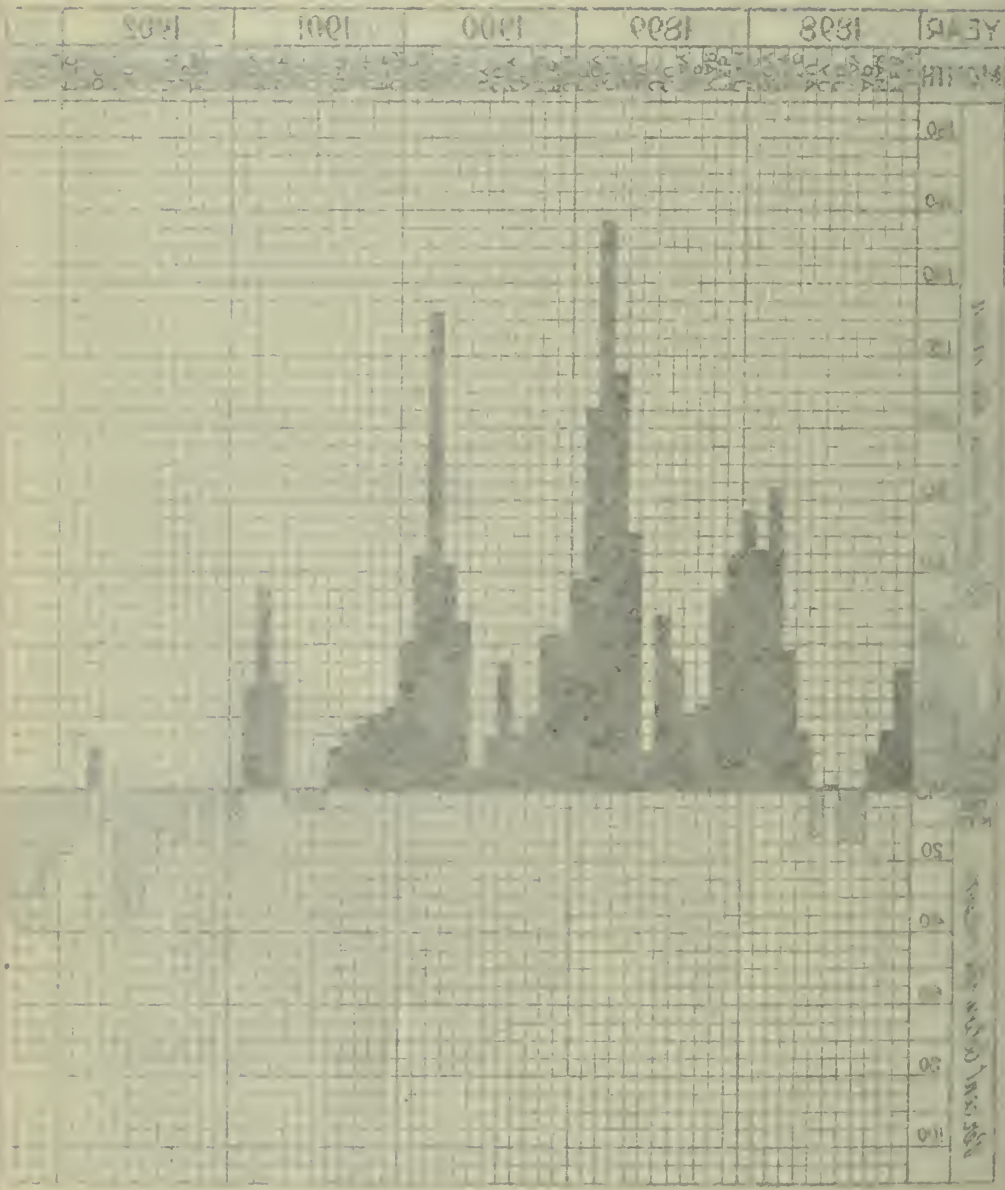
Chart showing monthly variations of Notifications in each year from 1898 to 1913.





# W O R L D F E V E R

Cholera epidemics world



since 1891, are stated in the following Table:—

SCARLET FEVER.

Year.	CASES.			DEATHS.			
	Number.	Rate per Million.	Per cent. treated in Hospital.	Number.	Rate per Million.	Per cent. occurring in Hospital.	Case-mortality. per cent.
1891	3,045	5,383	62·8	201	355	69·2	6·6
1892	4,844	7,257	62·7	301	451	63·5	6·2
1893	4,027	5,973	70·9	267	396	68·9	6·6
1894	3,930	5,701	73·7	210	307	70·0	5·3
1895	3,502	5,051	75·5	184	265	76·6	5·3
1896	2,728	3,879	78·9	143	203	82·5	5·2
1897	2,955	4,130	75·5	130	182	77·7	4·4
1898	3,620	4,947	82·3	190	260	76·3	5·2
1899	4,728	6,327	83·8	205	274	71·7	4·3
1900	4,162	5,508	85·7	210	278	77·6	5·0
1901	3,317	4,355	84·3	131	172	80·1	3·9
1902	2,509	3,229	85·3	113	145	77·9	4·5
1903	2,031	2,597	85·3	82	105	79·2	4·0
1904	1,573	2,003	83·2	69	88	85·5	4·4
1905	970	1,235	87·1	35	45	97·1	3·6
1906	1,382	1,721	87·8	50	62	84·0	3·6
1907	1,759	2,180	89·0	45	56	97·8	2·6
1908	2,797	3,491	91·4	89	111	95·5	3·2
1909	4,410	5,510	91·8	158	197	89·2	3·5
1910	4,203	5,277	91·4	141	177	89·4	3·4
1911	3,154	4,020	91·7	91	116	91·2	2·9
1912	2,893	3,687	91·9	73	93	98·6	2·5
1913	4,134	4,005	94·8	135	131	94·1	3·3

4,134 cases of scarlet fever occurred in 1913, and the attack-rate was 4·0 per 1,000, as compared with 3·7 in 1912. The case-mortality was 3·3, as against 2·5 per cent.

The chart on the opposite page shows the average monthly incidence of the disease during the past fifteen years. Since 1909 the tendency of the curve has been downward, though this tendency was arrested during 1913, especially in November and December. As with diphtheria a higher proportion of children in the added area does not explain this increased incidence, as the rates at the various age periods in the old City are uniformly in excess of those for the added area, as is shown in the following Table:—

OLD AREA.			ADDED AREA.		GREATER GLASGOW.	
AGE.	Cases.	Case rate per 10,000.	Cases.	Case rate per 10,000.	Cases.	Case rate per 10,000.
— 1	45	24·1	10	16·7	55	22·3
— 5	1,023	145·3	257	112·2	1,280	137·2
—15	2,515	157·9	599	116·0	3,114	147·7
—25	390	25·6	65	14·8	445	23·2
—45	148	6·1	29	4·0	177	5·6
—65	13	1·1	5	1·5	18	1·2
65+	...	...	...	...	...	...
All Ages,	4,134	52·2	965	40·3	5,099	49·4

The Ward incidence of the disease is shown in Appendix Table XXIV. Cases occurred in all the Wards, but the disease was, relatively, most prevalent in Jordanhill, Shettleston and Tollcross, Cowlairst, Maryhill and Cowcaddens, where the attack-rates were 7,902, 7,648, 6,352, 5,391, and 5,264 per million, as compared with the average rate for the City as a whole of 4,005.

The highest death-rates occurred in Shettleston and Tollcross, Calton, Sandyford, Langside, and Mile-end Wards.

Kingston and Dalmarnock Wards come next, while in eight other Wards the rates also exceeded that of the City.

The following Table shows the number of cases treated at home and in hospital in each year since 1891, and the number of deaths occurring in each group. The case-mortality during the year among hospital cases is less than that of cases treated at home. Cases treated at home are relatively few in number, and the rates in these circumstances are liable to fluctuation, and are apt to mislead:—

GLASGOW.—SCARLET FEVER.

YEAR.	TREATED AT HOME.			TREATED IN HOSPITAL.		
	Cases.	Deaths.	Case-mortality per cent.	Cases.	Deaths.	Case-mortality per cent.
1891	1,133	62	5·5	1,912	139	7·3
1892	1,807	110	6·1	3,037	191	6·3
1893	1,172	83	7·1	2,855	184	6·4
1894	1,034	63	6·1	2,896	147	5·1
1895	858	43	5·0	2,644	141	5·3
1896	576	25	4·3	2,152	118	5·5
1897	724	29	4·0	2,231	101	4·5
1898	640	45	7·0	2,980	145	4·9
1899	764	58	7·6	3,964	147	3·7
1900	594	47	7·9	3,568	163	4·6
1901	522	26	5·0	2,795	105	3·8
1902	369	25	6·8	2,140	88	4·1
1903	297	17	5·7	1,734	65	3·8
1904	265	13	4·9	1,308	56	4·3
1905	125	1	0·8	845	34	4·0
1906	168	8	4·8	1,214	42	3·5
1907	193	1	0·5	1,566	44	2·8
1908	240	4	1·7	2,557	85	3·3
1909	363	17	4·7	4,047	141	3·5
1910	360	15	4·2	3,843	126	3·3
1911	261	8	3·1	2,893	83	2·9
1912	235	1	0·4	2,658	72	2·7
1913	213	8	3·8	3,921	127	3·2

“RETURN” CASES.

During the year, 117 “return” cases occurred in 94 families, subsequent to the return of earlier cases from hospital. This represents a rate of 3·1 per cent. on the dismissals. The average residence in hospital of the earlier cases was 55 days, the maximum was 129 days, and the minimum 36.

The following Table shows the distribution of the cases throughout the three weeks subsequent to dismissal of the first case:—

GLASGOW, 1913.—SCARLET FEVER.—RETURN CASES.—DAYS ELAPSING BETWEEN RETURN OF EARLIER AND SICKENING OF SUBSEQUENT CASES.

FIRST WEEK.		SECOND WEEK.		THIRD WEEK.	
Days Elapsing.	No. of Cases.	Days Elapsing.	No. of Cases.	Days Elapsing.	No. of Cases.
1	1	8	4	15	9
2	2	9	6	16	5
3	4	10	5	17	3
4	9	11	5	18	3
5	9	12	6	19	4
6	8	13	5	20	2
7	7	14	6	21	14
				and over }	
	40		37		40



### “SECONDARY” CASES.

73 “secondary” cases occurred in households after disinfection had been carried out after a previous case. Of the total, 43 occurred within one week, 23 others within 14 days, and 7 exceeding 14 days.

GLASGOW, 1913.—SCARLET FEVER.—SECONDARY CASES occurring in HOUSEHOLD after DISINFECTION.

FIRST WEEK.		SECOND WEEK.		THIRD WEEK.	
Days Elapsing.	No. of Cases.	Days Elapsing.	No. of Cases.	Days Elapsing.	No. of Cases.
1	6	8	4	15	3
2	7	9	3	16	2
3	8	10	3	17	1
4	2	11	2	18	...
5	10	12	3	19	1
6	7	13	3	20	...
7	3	14	5	21	...
	43		23		7

### EFFECT OF SCHOOL HOLIDAYS ON THE OCCURRENCE OF CASES.

The apparent effect of school holidays in reducing the number of cases was referred to when dealing with diphtheria, and a similar Table is here introduced for scarlet fever. While there was only a slight increase in the number of cases during the two months the schools were closed, there was a very marked increase during the following two months. This was most marked at school ages 5-14. As pointed out when dealing with the diphtheria cases, however, this may not be wholly due to school influence, but may be associated with the autumnal increase in the prevalence of this disease.

GLASGOW, 1913.—SCARLET FEVER.—CASES NOTIFIED between May 1st and October 31st, 1913, ARRANGED to SHOW the INFLUENCE of SCHOOL HOLIDAYS ON CASE-INCIDENCE.

PERIODS.	Cases Notified.						Increase or Decrease.						TOTAL.
	Age, 0—5.		Age, 5—14.		Age, 14 and up.		Age, 0—5.		Age, 5—14.		Age, 14 and up.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1st { May 1 to June 30,	74	49	131	188	34	35	...	...	...	...	...	...	511
2nd { July 1 to Aug. 31,	77	74	128	154	35	53	+ 3	+ 25	- 3	- 34	+ 1	+ 18	521
							+ 28		- 37		+ 19		
3rd { Sept. 1 to Oct. 31,	93	99	282	401	70	62	+ 16	+ 25	+ 154	+ 247	+ 35	+ 9	1,007
							+ 41		+ 401		+ 44		
	244	222	541	743	139	150							2,039
	466		1,284		289								

*Scarlet Fever Associated with a Milk Supply.*—The following report on the occurrence of a number of cases of scarlet fever associated with a milk supply in Woodside District was reported for the information of the Health Committee.

*Extract from Minute of 14th January, 1914.*

SCARLET FEVER.—WOODSIDE.

In the period between November 24 and December 17, 31 cases of scarlet fever occurred among the customers of a dairy in the Northern district of the city, 8 of them being secondary to previously-occurring cases in different households. The first illness among them occurred within two days after the development of a sore throat in one of the dairy employees, whose illness was so mild that she continued at work until cases among the consumers arrested attention.

The sore throat here referred to began on 22nd November, the first case among the customers occurring on 24th, and 15 cases in 15 families had sickened before the close of the month. Six additional cases occurred in the week ending December 6, and 2 more later in the month (15th and 17th December). On November 27th the dairy-keeper developed symptoms suggesting, but by no means conclusive of, scarlet fever. Save this illness and that in the employee, who was a milker, there was complete absence of any suggestion of contamination of the milk from other sources, and the diminution and final cessation of the cases within 16 days after their separation from the milk traffic, and the disinfection of the premises, supports the suggestion that the milk became infected through the illness of the milker.

MEASLES.

14,935 cases were registered in 1913, as compared with 15,020 in 1912, and 578 deaths occurred, representing a death-rate of ·560 per 1,000 of the estimated population living. Of the total deaths, 23·7 per cent. occurred in hospital, and 93·4 per cent. of the fatal attacks were in children under 5 years of age.

For several periods the death-rate has been as follows:—

1881-90,	...	...	...	·680	per 1,000 living.
1891-1900,	...	...	...	·784	„
1901-1905,	...	...	...	·512	„
1906-1910,	...	...	...	·634	„
1911,	...	...	...	·375	„
1912,	...	...	...	·664	„
1913,	...	...	...	·560	„

The following Table shows the death-rate per 100,000 for several large towns for the ten years 1902-1911,\* and for 1913:—

						1902-1911.	1913.
Glasgow,	...	...	...	...	...	53	56
Edinburgh,	...	...	...	...	...	27	19
Dundee, ...	...	...	...	...	...	46	25
Aberdeen,	...	...	...	...	...	35	91
Paisley, ...	...	...	...	...	...	41	30
Greenock,	...	...	...	...	...	48	44
London, ...	...	...	...	...	...	44	35
Liverpool,	...	...	...	...	...	51	42
Manchester,	...	...	...	...	...	54	36
Birmingham,	...	...	...	...	...	42	46

\* Registrar-General's Annual Report.

The following Table shows the total deaths, the number occurring in hospital, and their proportion to the total deaths from the disease for several years:—

Year.	DEATHS.		Death-rate per Million.	Percentage of Total Deaths occurring in Hospital.
	Total Number.	Number occurring in Hospital.		
1895	329	46	475	14·0
1896	819	126	1,164	15·4
1897	586	73	819	12·5
1898	539	89	737	16·5
1899	544	95	828	17·5
1900	461	81	610	17·6
1901	499	89	655	17·8
1902	266	33	342	12·4
1903	346	73	442	21·1
1904	328	54	418	16·5
1905	551	159	701	28·9
1906	395	108	492	27·3
1907	400	158	496	39·5
1908	824	224	1,028	27·2
1909	394	68	492	17·3
1910	527	155	662	29·4
1911	294	105	375	35·7
1912	524	130	664	24·8
1913	578	137	560	23·7

#### WHOOPIING-COUGH.

The deaths from whooping-cough during 1913 numbered 753, which is equal to a death-rate of 729 per million living. The death-rate from the disease for several periods has been as follows:—

1881-1890,	...	...	...	1·150 per 1,000 living.
1891-1900,	...	...	...	·879     "
1901-1905,	...	...	...	·802     "
1906-1910,	...	...	...	·699     "
1911,	...	...	...	·625     "
1912,	...	...	...	·307     "
1913,	...	...	...	·729     "

In comparison with other large towns, the rate per 100,000 for the ten years 1902-1911 and for 1913 was as follows:—\*

	1902-1911.	1913.
Glasgow, ...	71	73
Edinburgh, ...	36	38
Dundee, ...	45	5
Aberdeen, ...	46	28
Paisley, ...	49	40
Greenock, ...	53	64
London, ...	30	18
Liverpool, ...	43	32
Manchester, ...	37	19
Birmingham, ...	40	19

The Ward distribution of the disease is shown in Appendix Table XXIV.

\* Registrar-General's Annual Report.



The total deaths, deaths occurring in hospital, and the proportion which these form to the total deaths in each year since 1895, are shown in the following Table:—

YEAR.	DEATHS.		Death-rate per Million.	Percentage of Deaths occurring in Hospital.
	Total Number.	Number occurring in Hospital.		
1895	614	48	886	7·8
1896	643	68	914	10·6
1897	842	80	1,177	9·5
1898	703	86	961	12·2
1899	323	23	432	7·1
1900	694	67	918	9·7
1901	850	72	1,116	8·5
1902	466	59	600	12·7
1903	604	71	772	11·7
1904	574	96	731	16·7
1905	621	100	791	16·1
1906	400	94	498	23·5
1907	872	231	1,081	26·5
1908	526	131	656	24·9
1909	775	188	968	24·3
1910	232	74	291	31·9
1911	625	180	797	28·8
1912	241	58	307	24·1
1913	753	183	729	24·3

#### DIARRHOEAL DISEASES.

The deaths registered as due to diarrhoeal diseases in 1913 numbered 833, representing a death-rate of '807 per million. For the previous year the rate was '506 per million. These rates are not strictly comparable owing to the change in the rules for the classification now adopted, and which have already been referred to. The diseases included within this group from 1906 to 1912 were:—Epidemic diarrhoea, epidemic enteritis, infective enteritis, zymotic enteritis, summer diarrhoea, choleraic diarrhoea, cholera (other than Asiatic), gastro-enteritis, gastro-intestinal catarrh, mucocolitis.

For several periods this rate has been—

1881-1890,	...	...	...	...	...	700 per 1,000 living.
1891-1900,	...	...	...	...	...	843    "
1901-1905,	...	...	...	...	...	849    "
1906-1910,	...	...	...	...	...	736    "
1911.	...	...	...	...	...	897    "
1912,	...	...	...	...	...	506    "
1913,	...	...	...	...	...	807    "

On the basis of the Registrar-General's returns, the death-rate of Glasgow may be compared with several other towns\* :—

	Death-rate per 100,000. *						
	1902-1911.						
Glasgow,	...	...	...	...	...	...	35
Edinburgh,	...	...	...	...	...	...	18
Dundee, ...	...	...	...	...	...	...	62
Aberdeen,	...	...	...	...	...	...	24
Paisley,	...	...	...	...	...	...	36
Greenock,	...	...	...	...	...	...	36
London,	...	...	...	...	...	...	66
Liverpool,	...	...	...	...	...	...	125
Manchester,	...	...	...	...	...	...	93
Birmingham,	...	...	...	...	...	...	97

\* Compiled from Registrar-General's Annual Report.

The relation between the mean temperature during June to September and the autumnal prevalence of the disease may be shown thus:—

	1909.		1910.		1911.		1912.		1913.	
	Mean Temp. in Shade.	Deaths under 1 year.	Mean Temp. in Shade.	Deaths under 1 year.	Mean Temp. in Shade.	Deaths under 1 year.	Mean Temp. in Shade.	Deaths under 1 year.	Mean Temp. in Shade.	Deaths under 1 year.
June, -	53°·7	3	55°·7	4	56°·4	15	54°·3	22	54·9°	12
July, -	55°·5	1	56°·5	6	60°·5	43	58°·1	38	57·5°	34
August, -	56°·8	18	57°·0	31	60°·7	144	53°·1	56	57·2°	103
September,	51°·4	17	53°·8	27	53°·6	115	50°·7	26	53·8°	144

The Ward distribution of the deaths is shown in Appendix Table XV.

### DANGER FROM FLIES.

The attention of the public was specially directed to the danger of the common house-fly in carrying germs of disease, and a leaflet was issued, which is here reproduced. One was also addressed to stable-keepers, requesting them to co-operate in the movement by the frequent removal of manure and refuse from their premises. The Department undertook the disinfection of these dung-pits after removal of the contents.

The movement was given further publicity by the display of a placard for a week on all the Corporation tramcars.

The following are reprints of the leaflets above referred to:—

#### FLIES AS DISEASE CARRIERS.

The Committee on Health wish to call the earnest attention of householders to the part played by the Common Fly and Bluebottle in spreading disease. The presence of these insects is a *very serious danger to health*, because they breed in filth and carry the germs of disease. These germs are so tiny that a fly may easily carry thousands of them on its legs, wings, or body.

When flies enter the house they are seeking food. The germs of disease are thus spread easily and unnoticed by the fly from filth to food, and from food into the mouth. Young children thus contract *summer diarrhoea*, which is always a serious and often a fatal disease, especially in warm weather. 500 children under one year of age die from this disease in Glasgow every summer and autumn. The fly feeds eagerly on the spit of consumptives—the germs of tuberculosis, enteric fever, affections of the eyes, and other diseases are often brought into the house by flies.

#### PRACTICAL HINTS.

1. No milk or food of any kind should be left lying about uncovered. Where they cannot get food flies will not linger in the house. *Keep the Fly from Baby and its food.* The fly is fond of dipping its filthy feet in milk.
2. Scraps of food left over after a meal should be at once burned or removed from the house.
3. Children should not be allowed to play in the neighbourhood of stables, manure heaps, ashbins, or ashpits, as it is in these that disease lurks.
4. Fly-papers should be used. A simple fly-paper may be made by smearing one side of a sheet of notepaper with syrup and closing the other side on it; on opening out an effective fly-paper is ready, which should be placed near the window of the room.
5. Every opportunity should be taken to destroy flies. One fly may in a single summer breed millions of others. They are dangerous enemies to Public Health, and *should be killed wherever found.*

A. K. CHALMERS, M.D.,  
Medical Officer of Health.

Sanitary Chambers,  
Glasgow, 23rd August, 1913.

## TO STABLE-KEEPERS, &amp;C.

In connection with the movement for the destruction of flies in the interests of Public Health, a circular (of which copy herewith) is being distributed to Householders, but it is recognised that such an effort is useless unless accompanied by an attack on the breeding-grounds of flies—which are the *manure* and *bedding* of *stables*, *byres*, and *piggeries*, *ashpits*, and indeed wherever there is decayed animal or vegetable matter. As the eggs take about ten days to develop, the only effective way to prevent the flies coming into existence is the frequent removal of all such refuse. In *no case* should the refuse or bedding be allowed to *lie over for one week*, and more frequent clearing will aid the Fly Campaign.

In the enclosed circular you will notice that the prevalence of certain infectious diseases, *e.g.*, summer diarrhœa in children, enteric fever, tuberculosis (consumption), eye affections, are regarded as due in large measure to the agency of flies and bluebottles. As it is of far greater importance to prevent the development of these insects than to kill them when fully formed, your hearty co-operation in the movement is confidently asked.

A. K. CHALMERS, M.D.,  
*Medical Officer of Health.*

Sanitary Chambers,  
Glasgow, 23rd August, 1913.

## TUBERCULOUS DISEASES.

## PHTHISIS.

Tuberculosis of the lung or pulmonary phthisis was included under the Infectious Disease (Notification) Act, 1910, and during the present year 2,534 cases were registered, giving an attack-rate of 2,552 per million. The deaths registered during the same period numbered 1,457, which is equal to a death-rate of 1,412 per million living, and is considerably in excess of that for the previous year, which was 1,318 per million.

For several periods the death-rate has been as follows:—

1881-90,	...	...	...	2·680	per 1,000 living.
1891-1900,	...	...	...	2·015	„
1901-1905,	...	...	...	1·626	„
1906,	...	...	...	1·513	„
1907,	...	...	...	1·562	„
1908,	...	...	...	1·417	„
1909,	...	...	...	1·409	„
1910,	...	...	...	1·297	„
1911,	...	...	...	1·305	„
1912,	...	...	...	1·318	„
1913,	...	...	...	1·412	„

In several towns in Scotland the death-rate for the ten years, 1902-1911 and 1913, has been:—

PHTHISIS DEATH-RATE PER 100,000 IN CERTAIN SCOTCH TOWNS FOR THE  
TEN YEARS, 1902-1911 and for 1913.

1902-1911. 1913.				1902-1911. 1913.			
Glasgow,	...	151	143	Aberdeen,	...	117	109
Edinburgh,	...	127	114	Paisley,	...	131	111
Dundee,	...	171	116	Greenock,	...	139	146



The reduction which has taken place in the phthisis death-rate in Glasgow during the whole period of registration is shown in the following Table:—

DEATH-RATE FROM PHTHISIS IN THE SEVERAL QUINQUENNIA SINCE THE BEGINNING OF REGISTRATION.

Years.	Death-rate per Million.	Years.	Death-rate per Million.
1855-9, ... ..	3,742	1885-9, ... ..	2,601
1860-4, ... ..	4,094	1890-4, ... ..	2,315
1865-9, ... ..	3,972	1895-9, ... ..	2,014
1870-4, ... ..	3,908	1900-4, ... ..	1,712
1875-9, ... ..	3,644	1905-9, ... ..	1,468
1880-4, ... ..	3,140	1910, ... ..	1,297
1911, ... ..	...	...	1,305
1912, ... ..	...	...	1,318
1913, ... ..	...	...	1,412

The cases and case-rates and the deaths and death-rates in each Ward for 1913 are shown in Appendix Tables XIV., XV., XXIII., and XXIV. respectively.

Relatively the disease was most prevalent in Exchange, Calton, Gorbals, Kinning Park, and Cowcaddens, where the attack rates were 4,161, 3,794, 3,293, 3,290, and 3,277 per million. In other nine Wards, Blackfriars, Broomielaw, Kingston, Plantation, Mile-end, Anderston, Sandyford, Townhead, and Whitevale, the mean rate of 2,552 for the City was exceeded in the order named, the highest of these—Blackfriars—having a rate of 3,048 per million, and the lowest—Whitevale—a rate of 2,586 per million.

Notification having now been in force for four years, the irregularities in case-rates incidental to its introduction are to some extent eliminated, so that the rates quoted afford a fair comparison of the distribution of the disease throughout the City.

The death-rates are less affected by such irregularities, and afford a more uniform method of comparing the relative incidence of the disease, and the rates for each Ward are here shown arranged in the order of their incidence in relation to the mean rate of the City.

On this basis the disease is considerably in excess in Broomielaw, Kinning Park, Blackfriars, and Calton, where it exceeds 1,900 per million, while the rates in eight other Wards are also in excess of the City mean.

GLASGOW, 1913.—PULMONARY PHTHISIS. TABLE SHOWING DEATH-RATE FOR EACH WARD COMPARED WITH THAT FOR THE CITY.

Ward.	Death-rate per Million.	Ward.	Death-rate per Million.
Broomielaw, ... ..	3,156	Dalmarnock, ... ..	1,122
Kinning Park, ... ..	2,506	Maryhill, ... ..	1,087
Blackfriars, ... ..	2,273	Hutchesontown, ... ..	1,045
Calton, ... ..	1,969	Pollokshaws, ... ..	1,028
Anderston, ... ..	1,747	Shettleston and Tollcross,	1,028
Cowcaddens, ... ..	1,744	Springburn, ... ..	1,018
Plantation, ... ..	1,635	Govan (Central), ... ..	963
Townhead, ... ..	1,584	Govanhill, ... ..	942
Woodside, ... ..	1,577	Dennistoun, ... ..	911
Gorbals, ... ..	1,571	Blythswood, ... ..	846
Partick (East), ... ..	1,461	Partick (Central), ... ..	795
Whitevale, ... ..	1,419	Jordanhill, ... ..	769
<b>CITY, ... ..</b>	<b>1,412</b>	Exchange, ... ..	694
Cowlairs, ... ..	1,292	Partick (West), ... ..	647
Mile-end, ... ..	1,289	Langside, ... ..	622
Fairfield, ... ..	1,274	Park, ... ..	540
Sandyford, ... ..	1,246	Pollokshields, ... ..	495
Ibrox, ... ..	1,227	Cathcart, ... ..	479
Kingston, ... ..	1,208	Kelvinside, ... ..	272

*Tuberculosis Dispensaries.*—The tuberculosis dispensaries described in last year's report are now in operation, and the following time-table shows the provision made for consultation and treatment:—

Dispensary.	Days and Hours of Attendance.		Sex.	Wards in Dispensary Area.
Elmbank Crescent,	Monday	10.0	Males	11, 12, 13, 14, 15.
"    "	"	2.30	"	16, 17, 24, 25.
Broad Street, ...	"	12.30	"	1, 2, 3, 37.
Govan Town Hall,	"	2.30	"	26, 27, 28, 29, 30.
Black Street, ...	"	2.0	"	4, 5, 8, 9, 10.
"    "    ...	Tuesday	2.0	"	6 and 7.
"    "    ...	"	6.0	Males & Females	4, 5, 6, 7, 8, 9, 10.
Govan Town Hall,	"	2.0	Females	26, 27, 28, 29, 30.
Elmbank Crescent,	"	6.0	Males & Females	11, 17, 25.
Adelphi Street.	"	10.0	"	
	Wednesday	10.0	Males	9A, 18, 19, 20, 21, 22, 23, 35, 36.
	"	6.0	Males & Females	Do.
Govan Town Hall,	"	7.0	"	26, 27, 28, 29, 30, 31, 32, 33, 34.
Elmbank Crescent,	"	2.30	"	31, 32, 33, 34.
"    "	Thursday	10.0	Females	11, 12, 13, 14, 15.
"    "	"	2.30	"	16, 17, 24, 25.
Broad Street, ...	"	12.30	"	1, 2, 3, 37.
Black Street, ...	"	2.0	"	4, 5, 8, 9, 10.
Adelphi Street, ...	Friday	10.0	"	9A, 18, 23, 35, 36, 19, 20, 21, 22.
Black Street, ...	"	2.0	"	6 and 7.
Govan Town Hall,	"	2.30	"	26, 27, 28, 29, 30.

*Hospitals.*—Three of the eight new pavilions forming the extension of Ruchill Hospital for the treatment of pulmonary tuberculosis patients were opened during the year.

Further accommodation will be provided at Robroyston, and a report of the accommodation to be provided thereat will be found in the section dealing with hospital at page 87 of the present Report.

Negotiations for the purchase of Bellefield Sanatorium, Lanark, were begun, and plans have been prepared for the erection of a sanatorium at Southfield, to accommodate 152 adults and 300 children.

Details of all the cases occurring since the beginning of notification in 1910 have been tabulated, and will be reviewed in a later report, but the following summary is introduced here to maintain a continuous record:—

The Annual Report for 1912 dealt with cases registered in the old area. From the date of annexation to the end of the year 335 cases were registered in the added area.

<i>Cases registered in added Area from 5th November, 1912, to</i>					
31st December, 1912,	...	...	...	...	335
Less—Died,	...	...	...	...	8
Removed and not traced,	...	...	...	...	1
Removed from Glasgow,	...	...	...	...	2
					<hr/> 11
					<hr/> 324

SUMMARY OF CASES AS AT 1ST JANUARY, 1913.

<i>Total Cases registered from 1st January, 1910, to 31st</i>					
December, 1913,	...	...	...	...	11,031
Less—Died,	...	...	...	...	5,001
(1) Verified on notification, but subsequently:—					
Removed and not traced,	...	...	...	...	762
Removed from Glasgow,	...	...	...	...	773
(2) Could not be discovered on notification:—					
Not found at address given,	...	...	...	...	564
Notified from Poor Law Institution (with no					
fixed abode) still remaining,	...	...	...	...	357
					<hr/> 7,457
Total cases under observation at 31st December, 1913,	...	...	...	...	<hr/> 3,574

Altogether there have been registered during the four years ending 31st December, 1913, 11,031 cases, of which 5,001, or nearly 50 per cent., have died during the same period, while 762 had removed from the addresses given and could not be traced; 773 left the City; and 564 were not found at the addresses given. The total number of cases remaining under observation at the end of the year was 3,574.

*Cases Registered during 1913.*—As shown above, the number of cases registered during the year 1913 was 2,534. Of these, 2,425 were notified in terms of the Infectious Disease (Notification) Act, 1889, and Tuberculosis Regulations, 1912, while 109 were ascertained from other sources, as shown below.

I. *Source of Notified Cases*—

1. Occurring in private practice,	...	...	...	...	1,634
2. Occurring in public practice—					
(a) Poor Law cases at home addresses,	...	...	...	...	110
Poor Law cases from hospitals and					
poorhouses,	...	...	...	...	182
Poor Law cases at dispensaries,	...	...	...	...	53
					<hr/> 345
(b) Charitable dispensaries and infirmaries,	...	...	...	...	262
Corporation dispensaries,	...	...	...	...	184
					<hr/> 446
					<hr/> 791
Total cases notified,	...	...	...	...	2,425

II. *Source of information in cases not notified*—

(a) From admission and dismissal sheets of Poor Law					
Institutions,	...	...	...	...	39
(b) School Medical Officers,	...	...	...	...	11
(c) Port Local Authority,	...	...	...	...	2
(d) County Medical Officer,	...	...	...	...	13
(e) From death cards only,	...	...	...	...	44
					<hr/> 109
Total cases registered,	...	...	...	...	<hr/> 2,534



*Deaths among Registered Cases.*—In cases where the first information regarding the occurrence of the disease was obtained from the death registers inquiry was made at the medical practitioner certifying the death regarding the omission to notify, and the explanation given in the majority of cases was that the doctor certifying the death had only seen the patient a day or two before death, and had reason to believe that notification had already been made by some other party. The omissions to notify during 1910 numbered 198, but fell to 80 during 1911, and to 35 during 1912. In 1913 they numbered 44, which is equal to 3 per cent. only of the total deaths occurring in the latter year.

*Place of Residence at Time of Registration.*—When a patient is notified from a home address this is visited, and if the case can be definitely located the patient is regarded as a “home” case, even although at the time of notification he is under treatment in an institution. The results of these inquiries may be summarised as follows:—

Cases traced to home addresses, ... ..	2,246
Cases at home but not visited at request of medical attendant, ...	37
Cases where only known address was an institution, ... ..	172
Cases not found at address given (mostly from Poor Law Institutions and charitable dispensaries), ... ..	79
	<hr/>
	2,534
	<hr/>

*Public and Private Notifications.*—The figures given in the foregoing summary refer to the total number of cases *registered* during the year, while the following Table refers only to notifications under the Act received regarding the 2,425 cases so notified:—

Notifications.	Private.	Public.	Total.	Percentage Public.
Primary, ... ..	1,634	791	2,425	32·6
Multiple, ... ..	404	530	934	56·7
	<hr/>	<hr/>	<hr/>	<hr/>
	2,038	1,321	3,359	39·3
	<hr/>	<hr/>	<hr/>	<hr/>
Percentage multiple to primary notifications in each group,	24·7	67·0	38·5	...

*Age-Distribution of Cases Registered.*—This information was not obtained in 172 cases which were under treatment in Institutions; in 79 which were not found; and in 37 which were not visited at the request of the medical attendant. There thus remained 2,246 cases whose age-distribution are as follows:—

Ages.	Cases.	Ages.	Cases.
— 5 years, ... ..	66	— 35 years, ... ..	604
— 10 „ ... ..	100	— 45 „ ... ..	413
— 15 „ ... ..	140	— 55 „ ... ..	241
— 20 „ ... ..	208	— 65 „ ... ..	107
— 25 „ ... ..	339	+ 65 „ ... ..	28
	<hr/>		<hr/>
	853		1,393
	<hr/>		
	2,246		
	<hr/>		

*Housing Accommodation of Patients.*—At the time of registration 143 males and 29 females were under treatment in Institutions—mostly those of the Poor Law—and had no other address which could be verified; while 1,193 males and 1,053 females were housed as follows:—

SIZE OF HOUSE.	Number.		Total.
	Males.	Females.	
1 apartment, ... ..	179	208	387
2 apartments, ... ..	622	564	1,186
3     ,,     ... ..	251	172	423
4     ,,     and up, ...	141	109	250
Total at home, ... ..	1,193	1,053	2,246
In Institutions, ... ..	143	29	172
Not found, ... ..	60	19	79
Not enquired into, ...	19	18	37
Total cases registered, ...	1,415	1,119	2,534

*Institutional Treatment.*—Of the cases registered during the year, 1,100 received institutional treatment, and the following summary indicates the nature of this:—

Patients from	Local Authority Hospitals.	Sanatoria.	General Hospitals.	Poor Law Institutions.	Total.
1 apartment, ... ..	56	38	8	128	230
2 apartments, ... ..	197	160	21	202	580
3 do., ... ..	61	83	3	19	166
4 do., and up, ... ..	43	62	1	11	117
	<u>357</u>	<u>343</u>	<u>33</u>	<u>360</u>	<u>1,093</u>

Patients under institutional treatment at time of registration					
(mostly Poor Law), ... ..	...	...	...	...	172
					<u>1,265</u>

It thus appears that 50 per cent. of the patients notified received institutional treatment in one form or another.

*National Insurance.*—The following Table shows an analysis of all cases of phthisis in Greater Glasgow in relation to insurance and housing as at the date mentioned therein:—

PULMONARY TUBERCULOSIS.—CASES AT HOME, IN HOSPITAL, AND SANATORIA  
ON 31ST DECEMBER, 1913.

	Insured.		Dependent of Insured.		Not Insured.		Deposit Con- tributors.		Not Known.		Total.		Grand Total.
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
HOME CASES.													
1 apartment, ...	119	46	43	183	39	39	2	3	...	...	203	271	474
2 do., ...	473	141	199	594	106	70	3	3	...	...	781	808	1589
3 do., ...	140	57	33	88	29	38	2	...	...	...	204	183	387
4 do. and up,	75	32	9	30	52	20	...	...	...	...	136	82	218
Common Lodging- houses, ...	26	9	...	9	15	5	...	...	...	...	41	23	64
Total, ...	833	285	284	904	241	172	7	6	...	...	1365	1367	2732
Poor-law Hospitals,	101	25	32	129	152	58	7	5	39	8	331	225	556
Local Authority Hospitals, ...	56	20	...	11	6	5	2	1	...	...	64	37	101
Sanatoria, including Lanfine Home,	91	49	2	11	11	17	3	1	...	...	107	78	185
Grand Total, ...	1081	379	318	1055	410	252	19	13	39	8	1867	1707	3574

STATEMENT REGARDING HOME CASES.

(a) Returned from institutions, ...	...	...	...	...	917
(b) Had no institutional treatment, ...	...	...	...	...	1,815
					<u>2,732</u>

The financial provisions of the National Insurance Act and the treatment of tuberculosis by the Local Authority was made the subject of a report to the Health Committee, and forms Appendix V.

ATTENDANCE AT DISPENSARIES.

946 consultations were held throughout the year at the six dispensaries for consumption conducted by the Corporation. 2,139 patients attended for the first time, while these and other patients who had been in attendance during 1910, 1911, and 1912 made 18,704 subsequent visits. The attendances at each dispensary were as follows:—

Dispensary.	No. of Con- sulta- tions.	Primary Attendance.		Subsequent Attendances.		Total Attendances.	
		Males.	Females.	Males.	Females.	Males.	Females.
Broad Street, -	100	235	339	1,506	2,287	1,741	2,626
Duke Street, -	102	83	82	1,772	1,053	1,855	1,135
Elmbank Crescent,	269	314	268	2,107	2,884	2,421	3,152
Possil Road, -	110	96	156	1,326	1,927	1,422	2,083
Nicholson Street, -	136	136	157	1,189	828	1,325	985
Govan, - - -	229	95	178	972	853	1,067	1,031
<b>Total, - -</b>	<b>946</b>	<b>959</b>	<b>1,180</b>	<b>8,872</b>	<b>9,832</b>	<b>9,831</b>	<b>11,012</b>
		2,139		18,704		20,843	



## HOME VISITATION BY NURSES.

Of the cases notified during the year, 1,417 were visited at home by the nursing staff, while 198 cases notified in the previous year were also visited during the year for the first time. To these 1,615 cases and to cases under visitation at the beginning of the year the nurses made 27,373 home visits. In addition, each nurse on the staff attended the Dispensary consultations held in her district.

The information summarised above gives a general outline of the work in connection with the treatment of consumption which the Department is undertaking. A large amount of detailed information has been and is still being collected in regard to cases notified or under observation which will form the subject of a more extended report later.

## OTHER FORMS OF TUBERCULOUS DISEASE.

The following Table contains the deaths and death-rates of the several forms of tuberculous diseases taken from the Registrar-General's classification. Owing to the Registrar-General's Reports for 1912 and 1913 not being available, the figures for these years are not shown:—

GLASGOW.—TUBERCULOUS DISEASES.—DEATHS and DEATH-RATES per MILLION in each YEAR since 1894.\*

YEAR.	DEATHS.					DEATH-RATE PER MILLION.				
	Tubercular Meningitis.	Other Forms of Tuberculosis.	Tuberculous Diseases (Not Phthisis).	Phthisis.	All Tuberculous Diseases.	Tubercular Meningitis.	Other Forms of Tuberculosis.	Other Tuberculous Diseases (Not Phthisis).	Phthisis.	All Tuberculous Diseases.
1894	229	354	583	1,560	2,143	333	515	848	2,271	3,119
1895	229	398	627	1,584	2,211	329	572	901	2,276	3,177
1896	246	327	573	1,342	1,915	349	464	813	1,903	2,716
1897	266	341	607	1,434	2,041	372	477	849	2,006	2,855
1898	260	341	601	1,415	2,016	359	471	830	1,953	2,783
1899	240	406	646	1,454	2,100	327	553	880	1,981	2,861
1900	252	387	639	1,478	2,117	339	520	859	1,987	2,846
1901	238	458	696	1,392	2,088	311	599	910	1,821	2,731
1902	241	393	634	1,356	1,990	311	507	818	1,748	2,566
1903	235	424	659	1,342	2,001	299	539	838	1,705	2,543
1904	258	451	709	1,378	2,087	323	565	888	1,726	2,614
1905	245	409	654	1,233	1,887	302	505	807	1,522	2,329
1906	307	405	712	1,295	2,007	367	485	852	1,550	2,402
1907	390	446	836	1,314	2,150	460	526	986	1,550	2,536
1908	310	429	739	1,173	1,912	361	499	860	1,364	2,224
1909	297	419	716	1,178	1,894	341	480	821	1,351	2,172
1910	273	366	639	1,070	1,709	309	413	722	1,210	1,932
1911	253	388	641	998	1,639	322	495	817	1,272	2,089

\* From Registrar-General's Annual Reports.

Since the present classification of the "other forms" of tuberculous disease was introduced by the Registrar-General in 1883, a decrease in the death-rate therefrom, amounting to 25 per cent., has occurred. As already stated, the figures for the present year are not available, but the following Table from the Report of last year is repeated, in view of the fact that compulsory notification of all forms of tuberculosis will come into operation during the course of next year.

GLASGOW, 1883-1913.—DEATH-RATES PER MILLION FROM TUBERCULOUS DISEASES  
IN SEVERAL PERIODS, 1883-1911.

	AVERAGE ANNUAL DEATH-RATE.					Per cent. decrease in 31 years.
	1883-88.	1889-94.	1895-1900.	1901-1906.	1913.	
I. Phthisis, ... ..	2,849	2,319	2,018	1,679	1,412	50·4
II. Tubercular Meningitis,	405	387	346	319	297	34·4
III. Other forms of Tuber- culosis, ... ..	685	497	510	533	418	
	1,090	884	856	852	715	
All Tuberculous Diseases,	3,939	3,203	2,874	2,531	2,127	46·0

The deaths and death-rates from diseases of the tuberculous class other than phthisis for the several Wards are shown in Appendix Tables XIV. and XV. As in the case of phthisis, there is considerable fluctuation in the rates for individual Wards from year to year, but it again falls to be observed that there is no relation between the incidence of phthisis and of the other forms of tubercle. The Wards with the highest phthisis death-rates preserve a fair correspondence with those in which the general death-rate is excessive, and there is a close parallel between the distribution of other tuberculous diseases and phthisis itself.

In order to illustrate the Ward incidence of these other forms of tubercle, the following Table has been prepared showing the rates in descending order of severity. Townhead, Mile-end, Shettleston and Tollcross, and Springburn show excessive rates, while Kingston, Ibrox, Calton, Whitevale, and Hutchesontown are also considerably in excess of the City mean.

GLASGOW, 1913.—TABLE SHOWING RATE FOR EACH WARD COMPARED WITH  
MEAN FOR THE CITY.

Ward.	Death-rate per Million.	Ward.	Death-rate per Million.
Townhead, ... ..	1,046	Maryhill, ... ..	692
Mile-end, ... ..	1,010	Partick (Central), ...	687
Shettleston and Tollcross,	990	Blackfriars, ... ..	672
Springburn, ... ..	974	Cowcaddens, ... ..	631
Kingston, ... ..	899	Fairfield, ... ..	613
Ibrox, ... ..	882	Plantation, ... ..	592
Calton, ... ..	868	Pollokshaws, ... ..	587
Whitevale, ... ..	820	Woodside, ... ..	558
Hutchesontown, ...	817	Broomielaw, ... ..	498
Govan (Central), ...	788	Gorbals, ... ..	483
Partick (West), ...	786	Cathcart, ... ..	479
Anderston, ... ..	785	Jordanhill, ... ..	419
Kinning Park, ... ..	784	Dennistoun, ... ..	390
Govanhill, ... ..	780	Langside, ... ..	263
Sandyford, ... ..	731	Kelvinside, ... ..	181
Dalmarnock, ... ..	716	Pollokshields, ... ..	55
City, ... ..	715		
Partick (East), ...	708		
Cowlairs, ... ..	696		

#### TUBERCLE IN MILK.

During the year 1913, 428 samples of milk were received from the Veterinary Surgeon for examination for tubercle. Of these, 224 were from country byres, 164 from town byres, and 40 from byres from which milk is supplied to the City Fever Hospitals.

Last year no samples of milk were found to be tuberculous, but during the present year 5 from country byres and 8 from town byres were found tuberculous, representing 2·2 and 4·8 per cent. respectively on the total samples taken.

As formerly, the herds supplying milk for the hospitals were subjected to the tuberculin test, and the results are highly satisfactory.

A comparison over several years may be shown as follows:—

Year.	Where Samples taken.	Number of Samples.	Number found Tuberculous.	Percentage.
1907	Railway Stations, ...	163	7	4·3
1908	Country Byres, ... ..	417	18	4·3
	Town Byres, ... ..	108	5	4·6
	Byres from which Hos- pital Milk obtained, ...	174	4	2·3
1909	Country Byres, ... ..	423	24	5·7
	Town Byres, ... ..	122	4	3·3
	Byres from which Hos- pital Milk supplied, ...	47	...	...
1910	Country Byres, ... ..	466	6	1·29
	Town Byres, ... ..	163	2	1·23
	Byres from which Hos- pital milk supplied, ...	46	...	...
1911	Country Byres, ... ..	535	11	2·07
	Town Byres, ... ..	142	1	0·66
	Byres from which Hos- pital milk supplied, ...	58	...	...
1912	Country Byres, ... ..	442	...	...
	Town Byres, ... ..	178	...	...
	Byres from which Hos- pital milk supplied, ...	48	...	...
1913	Country Byres, ... ..	224	5	2·2
	Town Byres, ... ..	164	8	4·8
	Byres from which Hos- pital milk supplied, ...	40	1	2·5

#### DISEASES OF ORGANS OF RESPIRATION.

The deaths from respiratory diseases, including croup, but excluding pneumonia, numbered 1,397, giving a rate of 1,354 per million. The deaths from pneumonia numbered 1,615, representing a death-rate of 1,565 per million. From both causes together the deaths numbered 3,012, and represented a death-rate per million of 2,909, compared with 3,269 in 1912. The



death-rate from respiratory diseases for several periods per thousand of the population living has been :—

	Pneumonia.			Other Diseases of Respiration.	Total.
1881-90,	...	...	...	...	5·870
1891-1900,	...	...	...	...	4·993
1901-05,	...	...	...	...	4·141
1906, ...	...	...	1·657	1·770	3·427
1907, ...	...	..	1·934	1·676	3·610
1908, ...	...	...	1·860	1·741	3·601
1909, ...	...	...	2·046	1·987	4·033
1910, ...	...	...	1·494	1·349	2·843
1911, ...	...	...	1·618	1·444	3·062
1912, ...	...	...	1·756	1·513	3·296
1913, ...	...	...	1·565	1·344	2·909

The Ward distribution of the deaths from diseases of the respiratory system and pneumonia is shown in Appendix Tables XIV. and XV.

Taking the rates for 1913, the position of the several Wards in relation to the average rate for the City may be seen from the following Table :—

GLASGOW, 1913.—TABLE SHOWING RATE FOR EACH WARD COMPARED WITH MEAN FOR THE CITY.

Ward.	Death-rate per Million.	Ward.	Death-rate per Million.
Calton, ... ..	4,459	Springburn, ... ..	2,613
Exchange, ... ..	4,161	Pollokshaws, ... ..	2,570
Cowcaddens, ... ..	4,030	Partick (East), ... ..	2,477
Anderston, ... ..	3,885	Partick (Central), ... ..	2,279
Govan (Central), ... ..	3,809	Fairfield, ... ..	2,264
Blackfriars, ... ..	3,771	Maryhill, ... ..	2,248
Kinning Park, ... ..	3,759	Govanhill, ... ..	2,019
Dalmarnock, ... ..	3,635	Cowlairs, ... ..	1,987
Hutchesontown, ... ..	3,574	Park, ... ..	1,757
Mile-end, ... ..	3,567	Partick (West), ... ..	1,757
Plantation, ... ..	3,341	Jordanhill, ... ..	1,469
Townhead, ... ..	3,336	Kelvinside, ... ..	1,315
Sandyford, ... ..	3,266	Blythswood, ... ..	1,269
Gorbals, ... ..	3,264	Langside, ... ..	1,268
Kingston, ... ..	3,191	Dennistoun, ... ..	1,223
Broomielaw, ... ..	3,156	Pollokshields, ... ..	1,045
Ibrox, ... ..	3,138	Cathcart, ... ..	890
Shettleston and Tollcross,	2,973		
Whitevale, ... ..	2,965		
Woodside, ... ..	2,912		
City, ... ..	2,909		

#### PNEUMONIA.

The deaths and death-rates from pneumonia in the several Wards are shown in Appendix Tables XIV. and XV.

The highest death-rate occurred in Exchange Ward, where it was equal to 3,467 per million persons living, as compared with 1,538 for the City as a whole. The rate was next highest in Blackfriars, Mile-end, Cowcaddens, and Govan (Central), where the rates were 2,480, 2,170, 2,166, and 2,145 per million respectively.

The following report regarding the association of several cases of infectious pneumonia was presented for the information of the Health Committee:—

*Extract from Minute of 26th March, 1913.*

#### INFECTIOUS' (? SEPTIC) PNEUMONIA.

At intervals cases keep recurring which suggest that some forms of pneumonia are definitely infectious in character, and the following grouping of such cases is worthy of record from this point of view.

The first case of a series of five would appear to have occurred in the person of a widow lodging in a two-apartment house in Piccadilly Street. She was 71 years of age, and is said to have sickened on March 2nd. She was seen by a doctor on March 4th, and died on the 5th of what was certified to be "acute bronchitis." During her illness a friend, aged 52 years, came from an adjoining street to attend to her, and remained until after her death.

This friend, in turn, sickened on the day following the first patient's death, and died six days later, no doctor being in attendance.

The next case occurred in the person of a daughter-in-law of the first patient, who assisted in nursing her during the day, but lived at Brown Street. She sickened on 6th March, dying on 11th, and was not seen by any medical attendant during life. Her infection similarly may be ascribed to attendance on the sick.

Still two other cases sickened, viz., the tenant of the house in which the first patient lodged and his wife. The wife sickened on the 8th March, the husband on 10th, and they died on the 16th and 17th respectively.

The attention of the Health Department was first drawn to the occurrence of this group of cases by the brother-in-law of the second patient, whose burial the Department was asked to undertake. On *post-mortem* examination her death was ascertained to be due to double pneumonia. On visiting the house the same day, Dr. Wright found the two cases last mentioned ill, and had them removed to hospital, where they died on the dates already mentioned—the husband from lobar pneumonia, and the wife from double pneumonia.

Two children, who were the remaining inmates of the house in Piccadilly Street, and a male adult—husband of the patient in Brown Street—have been placed under observation in the Reception House. The incubation period would appear to have been less than 24 hours in the second case, and in three of the cases a fatal result ensued within a week.

#### PUERPERAL FEVER.

From the Table which follows, it will be observed that the case-rate from puerperal fever per thousand births, viewed over a number of years, is apparently increasing, although the case-mortality-rate shows a tendency to fall, more especially since 1906. This contrast would seem to suggest that the greater supervision of infant lives has led to the inclusion of a larger proportion of the puerperal fever cases occurring.

The death-rate from erysipelas shows a marked decrease when compared in quinquennial periods, the rate for this year being 62, as compared with 36 last year.

## PUERPERAL FEVER.—ERYSIPELAS.

Year.	PUERPERAL FEVER.				ERYSIPELAS.
	No of Cases Notified.	Case-rate per 1,000 Births.	Case-mortality per Cent.	Death-rate per Million Living.	Death-rate per Million Living.
1891	80	4.0	75.0	105	115
1892	63	2.8	68.3	64	84
1893	73	3.1	63.1	68	75
1894	64	2.8	54.7	51	83
1895	74	3.2	59.5	63	69
1896	105	4.4	53.3	79	55
1897	62	2.6	54.8	48	49
1898	71	2.9	53.5	52	40
1899	83	3.4	72.3	82	45
1900	78	3.2	74.3	78	32
1901	71	2.9	83.1	71	60
1902	90	3.6	55.5	51	51
1903	108	4.3	63.9	53	44
1904	89	3.6	66.3	53	53
1905	108	4.5	55.5	74	33
1906	119	4.8	48.7	69	62
1907	122	5.1	48.2	70	44
1908	119	5.0	47.9	66	29
1909	108	4.7	60.2	74	38
1910	113	5.1	56.6	72	34
1911	133	6.1	44.4	75	45
1912	142	6.5	42.3	76	36
1913	149	5.2	34.2	49	62

The Rates quoted above are based on data obtained from the Registrar-General's Reports.

The case-mortality stated above must be taken with a good deal of reservation, especially in the earlier years, when it is probable that many of the milder cases were not notified.

## INCIDENCE OF PUERPERAL FEVER IN RELATION TO NATURE OF ATTENDANCE AT BIRTH.

The operation of the Notification of Births Act now enables us to review the incidence of puerperal fever in some detail. Of the 149 cases of the disease registered last year, 51 had been under medical care from the beginning, while 98 were attended by midwives at the onset of labour, although in 36 of these medical assistance was subsequently obtained.

Placed in relation to the nature of the attendance, the incidence of the cases is of some importance, and may be shown as follows:—

Attended by	Births.	Cases.	Rate per thousand Births.
Doctors, ...	15,198	51	3.4
Midwives, ...	14,836	98	6.6
	30,034	149	5.0



Before accepting these rates as final, and more particularly before accepting the greater relative incidence of puerperal fever in cases attended by midwives as resulting from defective technique, it is necessary to remember that the midwives' practice is more frequently among the poorer classes and in the smaller houses, and that these are factors which, while incapable of express statement, must be taken into account when considering the difference in the incidence.

We still await the advantage which England derives from the Act of 1902, which places the midwives under regular medical supervision. A draft Bill has been prepared by the Society of Medical Officers of Health for Scotland.

The distribution of the cases throughout the Wards, and the nature of the attendance, are shown in Appendix Table XXVIII.

*Interval elapsing between Confinement and the Development of Puerperal Fever.*—Of the 81 cases medically attended, 62 occurred within the five days immediately following labour, whereas of the 68 cases attended by midwives the number occurring during a similar period was 42. A Table showing the details follows:—

GLASGOW, 1913.—TABLE SHOWING NUMBER OF DAYS ELAPSING BETWEEN CONFINEMENT AND DATE OF SICKENING FROM PUERPERAL FEVER.

How Attended.	Days.										Total.
	1	2	3	4	5	6	7	-15	15+		
Doctor, ... ..	23	17	11	10	1	3	4	7	5	81	
	62					19					
Nurse, ... ..	19	10	4	6	3	3	2	12	9	68	
	42					26					
											149

The following Tables also show the interval between confinement and sickening of cases which ended fatally, and the number of days elapsing between the day of sickening and the day of death:—

#### PUERPERAL DEATHS.

GLASGOW, 1913.—TABLE SHOWING NUMBER OF DAYS ELAPSING BETWEEN DATE OF CONFINEMENT AND DATE OF SICKENING.

How Attended.	Days.										Total.
	1	2	3	4	5	6	7	— 15	15 +		
Doctor, ... ..	9	4	2	6	2	1	2	1	...	27	
Nurse, ... ..	7	4	4	3	2	1	2	...	1	24	
	16	8	6	9	4	2	4	1	1	51	

GLASGOW, 1913.—TABLE SHOWING NUMBER OF DAYS ELAPSING BETWEEN DATE OF SICKENING AS STATED AND DATE OF DEATH.

How Attended.	Days.										Total.
	1	2	3	4	5	6	7	- 15	15 +		
Doctor, ... ..	2	...	3	2	3	1	2	9	5	27	
Nurse, ... ..	1	1	2	3	3	1	3	8	2	24	
	3	1	5	5	6	2	5	17	7	51	

### UNCERTIFIED DEATHS AND DEATHS WITHOUT MEDICAL ATTENDANCE.

In Appendix Tables XXX. and XXXI. the total deaths occurring during the years 1891-1900, and 1901-13, are stated, with the number and proportion uncertified and dying without medical attendance at all ages and under and over five years, together with a comparison of the proportions as affecting legitimate and illegitimate children under 1 and 5 years respectively, and in Table XXIX. of Appendix the numbers occurring in each class in the several Wards are given. Appendix Table XXXIII. gives corresponding information regarding the deaths occurring among members of Friendly Societies.

*Certification.*—At all ages, 0·8 per cent. of the deaths were uncertified, and 0·6 per cent. had no medical attendance. Under 5 years, however, 0·8 per cent. were uncertified, and 1·4 per cent. had no medical attendance. The greatest contrast is furnished by deaths occurring under 1 year. Among legitimate infants the proportion of those uncertified was 0·8 per cent., while among illegitimates it was 4·5 per cent. Of the legitimate children dying under one year, 46·2 per cent. were insured, an increase of 2·0 per cent. from last year, while among illegitimates the proportion is only 9·0 per cent., which represents a decrease of 3·1 per cent.

In the subjoined figures a comparison is established between the proportion of deaths uncertified in 1912 and 1913:—

NUMBER AND PROPORTION OF UNCERTIFIED DEATHS IN TOTAL DEATHS REGISTERED IN 1912 AND 1913.

	Under 5 Years.		Above 5 Years.		All Ages.	
	1912.	1913.	1912.	1913.	1912.	1913.
Total deaths, ... ..	4,449	6,098	8,311	10,851	12,760	16,949
Not certified, ... ..	56	49	76	84	132	133
Percentage, ... ..	1·3	0·8	0·9	0·8	1·0	0·8

### RABIES.

During the year the police reported, under the Rabies Order, 1897, the Dogs Order, 1906, and the Importation of Dogs Order, 1901, that 233 persons had been bitten by dogs, in 15 of whom the injury inflicted was classified as "severe," while the remaining 218 were of a more or less trifling character.

The greatest number occurred in the month of July, and the lowest in October.

The numbers occurring in each month, as well as their character, are shown in the following Tabulation:—

Months.	Severe.	Trifling.	Total.	
January, ... ..	1	12	13	} 42
February, ... ..	1	10	11	
March, ... ..	...	18	18	
April, ... ..	1	24	25	} 67
May, ... ..	2	17	19	
June, ... ..	1	22	23	
July, ... ..	4	33	37	} 89
August, ... ..	3	32	35	
September, ... ..	1	16	17	
October, ... ..	1	9	10	} 35
November, ... ..	...	11	11	
December, ... ..	...	14	14	
YEAR, ... ..	15	218	233	

*Glanders.*—One case of glanders was notified during the year in the stable of Messrs. R. D. Spittal, Ltd., 41 Fountainwell Road, Springburn. The horse was slaughtered and the remains cremated, while all the contacts were kept under observation.

*Anthrax.*—One case of anthrax was reported here on November 11th in the carcase of a pig at Hill Street Slaughter-house. The carcase was one of two pigs forwarded by two consignees in Tiree, West Highlands, so that the actual owner of the pig could not be traced. Persons known to have been in contact with the animal were kept under observation during the probable period of incubation, but in no case did illness arise. The usual precautions as to the cleansing and disinfecting of the premises were taken.

#### BACTERIOLOGICAL LABORATORY.

The following Report shows the work carried out by the Bacteriological Staff during the year. The figures for previous years are introduced for comparison.

Dr. Buchanan tabulates the results of these examinations in the following manner:—

#### SUMMARY REPORT BY THE BACTERIOLOGIST FOR YEAR 1913.

TABLE SHOWING THE NUMBER OF SPECIMENS SUBMITTED BY MEDICAL PRACTITIONERS FROM SUSPECTED CASES OF DIPHTHERIA, ENTERIC FEVER, and TUBERCULOSIS, DURING THE YEAR 1913. THE RESPECTIVE TOTALS FOR 1912 ARE SHOWN AT THE FOOT OF THE TABLE FOR COMPARISON.

1913.

MONTH.	DIPHTHERIA.	ENTERIC FEVER.	TUBERCULOSIS.	TOTAL.
January, - - -	236	34	297	567
February, - - -	194	39	333	566
March, - - -	256	43	376	675
April, - - -	251	46	325	622
May, - - -	226	49	350	625
June, - - -	166	35	275	476
July, - - -	174	30	213	417
August, - - -	238	66	244	548
September, - - -	232	60	274	566
October, - - -	340	45	298	683
November, - - -	378	37	284	699
December, - - -	387	111	292	790
Totals, - - -	3,078	595	3,561	7,234
Positive result obtained in - - - }	27%.	19%.	31%.	28%.



## 1912.

MONTH.	DIPHThERIA.	ENTERIC FEVER.	TUBERCULOSIS.	TOTAL.
Totals, - - -	2,621	585	2,235	5,441
Positive result obtained in - - - }	27%.	24%.	31%.	29%.

*Specimens received after hours.*—From suspected cases of diphtheria 807 specimens were received after 5 p.m. on week days and on Sundays in the course of the year. In view of the urgency of a bacteriological diagnosis in connection with these specimens the members of the staff have cordially undertaken evening and Sunday duty in rotation. The diagnosis of these specimens is thereby expedited by 24 hours.

TABLE SHOWING THE TOTAL NUMBER OF SPECIMENS FROM SUSPECTED CASES OF DIPHThERIA, ENTERIC FEVER, AND TUBERCULOSIS ANNUALLY SENT TO THE LABORATORY FOR BACTERIOLOGICAL DIAGNOSIS BY THE MEDICAL PRACTITIONERS OF GLASGOW SINCE THE INAUGURATION OF THIS WORK ON 1ST JANUARY, 1900.

Year.	Diphtheria.	Total.	Tuberculosis.	Enteric Fever.
1900, - -	353	1,247	351	543
1901, - -	438	2,051	565	1,048
1902, -	712	2,366	847	807
1903, - -	997	2,943	932	1,014
1904, - -	928	2,791	1,010	853
1905, - -	980	2,775	1,024	771
1906, - -	1,357	3,232	1,212	663
1907, - -	1,357	3,208	1,238	613
1908, - -	1,694	3,833	1,276	863
1909, - -	2,459	4,655	1,372	824
1910, - -	2,486	4,929	1,716	727
1911, - -	2,489	5,086	1,903	694
1912, - -	2,621	5,441	2,235	585
1913, - -	3,078	7,234	3,561	595
TOTALS, -	21,949	51,791	19,242	10,600

In addition to the routine bacteriological diagnosis of those specimens submitted by the medical practitioners of the City, there have also been received (1) from diphtheria contacts 1,364, (2) from patients attending the Tuberculosis Dispensaries 1,419, (3) for the diagnosis of ophthalmia neonatorum 664, and (4) for the application of the Wassermann test 155. These are detailed in the following tables respectively :—

## (1) DIPHTHERIA CONTACTS.

The systematic examination of all persons in more or less intimate contact with cases of diphtheria (commenced in March, 1906) was carried out during 1913 in 1,364 contacts, with the result that the bacillus of diphtheria was found in 167, or 12·24 per cent.

Source.	Total.	Positive.	Percentage Positive.
257 Households. ... ..	867	110	12·7 per cent.
6 Schools, ... ..	275	26	9·7 „
1 Training College, ...	3	—	—
1 Students' Settlement,	13	—	—
1 Girls' Home, ... ..	5	—	—
1 Lads' Home, ... ..	1	—	—
1 Barracks, ... ..	1	1	—
1 Club, ... ..	22	1	—
1 Nursing Home, ...	77	17	22·1 per cent.
1 Reception House, ...	1	—	—
1 Farm, ... ..	6	—	—
6 Dairies, ... ..	93	12	12·9 per cent.
	1,364	167	12·24 per cent.
Repeated Examinations, ...	343	119	34·7 per cent.

In a considerable number of diphtheria patients (42) and contacts (42) the examination of the throat was repeated at intervals to determine whether or not quarantine restrictions could be removed. The bacillus had disappeared from the throats of more than half of the patients and contacts by the end of the third week ; at the end of the sixth week it had gone from 88 per cent. of the patients, and from 83 per cent. of the contacts. In one patient it persisted for 10 weeks, in two contacts for 8 weeks.

## (2) TUBERCULOSIS DISPENSARIES.

The Bellefield Dispensary for Tuberculosis was established in the Sanitary Chambers in the beginning of 1906. Since then 8 Dispensaries have been opened in various parts of the City : in Broad Street, Duke Street, Oakbank, St. Vincent Street, and Nicholson Street in 1910 ; in Govan in 1912 ; and in Elmbank Crescent, and Adelphi Street in 1913.

The Sanitary Chambers also forms a centre to which patients are referred for examination.

During 1913 these Institutions collectively have yielded 1,419 specimens of sputum for examination as compared with 963 in 1912. The bacillus tuberculosis was found in an average of 22 per cent.

Dispensary.	Total Number of Specimens.	Number Positive.	Percentage Positive.
Bellefield, - - -	10	2	20°/.
Broad Street, - - -	346	49	14°/.
Duke Street, - - -	125	12	10°/.
Oakbank, - - -	125	13	10°/.
St. Vincent Street, - - -	21 (Jan.-Mar.)	8	38°/.
Nicholson Street, - - -	44 (Jan.-May)	9	20°/.
Govan, - - -	255	78	31°/.
Elmbank Crescent, - - -	196 (Mar.-Dec.)	56	28°/.
Adelphi Street, - - -	134 (May-Dec.)	27	20°/.
Sanitary Chambers(referred cases), - - -	163 (Feb.-Dec.)	59	36°/.
Totals for 1913, - - -	1,419	313	22°/.
Totals for 1912, - - -	963	218	23°/.

## (3) OPTHALMIA NEONATORUM.

Since the introduction of notification of ophthalmia neonatorum on 1st August, 1911, there has been a rapid increase in the specimens from suspected cases. The figures for 1912 are given for comparison.

Source.	1913.			1912.		
	Tot.	Pos.	Percentage Positive.	Tot.	Pos.	Percentage Positive.
From Medical Officer of Health,	617	285	46°/.	333	86	26°/.
From Medical Practitioners,	47	14	30°/.	31	11	35°/.
Totals, - - -	664*	299	45°/.	364	97	27°/.

\* In addition there were 6 repeated examinations, and 28 in which the material submitted was insufficient.

## (4) WASSERMANN TEST.

(24th September to 31st December, 1913.)

In accordance with the resolution of the Corporation facilities have been afforded to the practitioners of medicine for obtaining free of charge, in such cases as they think desirable, the application of the Wassermann test for syphilis. Since the institution of the test on 24th September until the end of the year 159 specimens of blood have been submitted from cases presenting more or less obscure symptoms.

	Total.	Positive.	Percentage Positive.
Specimens "A" received—			
Original, - - - - -	155	52	33·5°/.
Duplicate, - - - - -	4	1	
Specimens "A" received from—			
(a) Practitioners—			
Original, - - - - -	87	26	30·2°/.
Duplicate, - - - - -	2	0	
(b) Institutions, - - - - -			
Original, - - - - -	59	23	38·9°/.
Duplicate, - - - - -	0	0	
(c) Medical Officer of Health—			
Original, - - - - -	9	3	33·3°/.
Duplicate, - - - - -	2	1	



## MISCELLANEOUS INVESTIGATIONS.

In addition to the specimens tabulated above, 1,415 of a miscellaneous nature (as compared with 1,186 in 1912) were investigated for the Medical Officer of Health, the Sanitary Inspector, the Veterinary Surgeons, the Baths Department, Veterinary College, and Medical Practitioners within the City. These may be summarised as follows:—

*Medical Officer of Health—*(a) *Health Department—*

Food-stuffs for Organisms—Milk, ... ..	8	
Gonococcal Infections (other than Ophthalmia), ... ..	234	
Bacteriological Diagnosis—Urine (6), Pus (2), ... ..	8	
Tuberculosis—Swab (1), Urine (11), Milk (2), ... ..	14	
Enteric Fever—Urine (7), Faeces (7), ... ..	14	
Anthrax—Pus, ... ..	1	
Chemical Examination of Urine, ... ..	1	
Dust for Insects, ... ..	2	
Bacillus of Diphtheria—Test for Virulence, ... ..	4	
Pessaries for the Lactic Acid Bacillus, ... ..	9	
Syphilis—Blood for Wassermann Test (Jan.-Sept.), ... ..	7	
	—	302

(b) *Hospitals—**Belvidere—*

Diphtheria—Virulence Test, ... ..	10	
Syphilis—Blood for Wassermann Test (Jan.-Sept.), ... ..	5	

*Ruchill—*

Culture for B. dysenteriae, ... ..	1	
Diphtheria—Virulence Test, ... ..	63	
Enteric Fever—Urine, ... ..	1	
	—	80

*Sanitary Inspector—*

Examination of Food-stuffs, ... ..	15	
Diseased Mice—Favus, ... ..	2	
Disinfectants, ... ..	3	
Identification of Insects, ... ..	1	
Examination of Gelatine Plate Cultures, ... ..	2	
	—	23

*Veterinary Surgeon—*

Milk from Country Cows with Disease of the Udder—		
Original 231, Duplicate 78, ... ..	309	
Milk from Town Cows with Disease of the Udder—		
Original 258, Duplicate 85, ... ..	343	
(For results see below.)		
Tuberculosis—Swabs (30), Tissue (3), ... ..	33	
Meat for Organisms, ... ..	1	
Milk do., ... ..	1	
	—	687

*Veterinary Surgeon under Tuberculosis Order of 1913 (Nov.-Dec.)—*

Milk from Country Cows with Disease of Udder, ... ..	1	
Milk from Town do. do., ... ..	38	
Tuberculosis—Glands (3), Lung (1), ... ..	4	
	—	43

*Baths Department—*

Bacteriological Examination of Samples of Water, ... ..	41	
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*Veterinary College—*

Bacteriological Diagnosis—Tissues and Exudates for Glanders, ... ..	9	
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*Medical Practitioners—*

Tuberculosis—Urine (78), Pus (11), Fæces (1), Glands (4), Pleural fluid (1), ... ..	95
Enteric Fever—Urine (3), Fæces (3), Water (1), ... ..	7
Paratyphoid Fever—Blood (2), Urine (3), Fæces (3), ... ..	8
Syphilis—Pus for <i>Spirochaeta pallida</i> , ... ..	2
Bilharziasis—Urine, ... ..	35
Bacterial Diagnosis—Urine (7), Swabs (3), Pus (9), Synovial fluid (1), Fluid from Cyst (1), Tissue (1), Fæces (1), Mucus (1), Blood (1), Dressing (1), ... ..	26
Nasal Catarrh—Swabs, ... ..	5
Pneumonia—Sputum, ... ..	3
Food-stuffs—Ham, ... ..	1
Gonococcal Infections—Urethritis (7), Cystitis (7), Vaginitis (9), Conjunctivitis (3), ... ..	26
Actinomycosis—Tissue, ... ..	1
Vincent's Angina, ... ..	7
Malaria—Blood (4), Pleural Fluid (1), ... ..	5
Favus—Hair, ... ..	1
Glanders—Pus, ... ..	1
Pathological Examination—Urine (1), Blood (4), ... ..	5
Anthrax—Cat, ... ..	1
Diphtheria—Virulence test, ... ..	1
	<hr/> 230
Total, =	<hr/> 1,415 <hr/>

## MILK AND TUBERCULOSIS, 1913.

The 528 samples of milk from cows with disease of the udder submitted for examination by the Veterinary Surgeons during 1913 yielded 14 (2·7 per cent.) which were proved to contain the bacillus tuberculosis—9 from town cows (3 per cent.) and 5 from country cows (2·2 per cent.). It was found in the course of the investigations that the bacillus tuberculosis was not necessarily found in the milk at the beginning, middle, and end of a milking. The milk from 10 of the positive cows was specially examined in this respect and in 3 only did the bacillus appear in all three stages of the milking, 2 showed it in the first stage only, 1 in the first and third, and 3 in the third only.

In only 7 of the positive samples did the microscope reveal the presence of the tubercle bacillus, whereas in 34 of the negative samples an organism was found having all the characteristics of the tubercle bacillus as to form and acid-fastness, but differing from it experimentally. In 54 samples bacilli appeared showing acid-fastness but not otherwise resembling the tubercle organism and not producing tuberculosis in guinea-pigs.

THE EFFECTS OF EXTENSION OF THE CITY BOUNDARY ON THE  
WORK OF THE LABORATORY.

The annexation of the surrounding districts and burghs has extended the scope of the Laboratory's operations and has greatly added to the volume of its work. In 1913 the total number of examinations and investigations amounted to 13,940 as compared with 9,912 in 1912. The increase is more than 3,000 above the average increase of previous years and may be taken as representing the specimens from the augmented population.

## EXAMINATION OF RATS IN RELATION TO PLAGUE, 1913.

During the year 1,236 rats were brought to the Laboratory and examined for plague, with negative results. The following Table gives the numbers examined in relation to the places from which they were obtained, and in comparison with last year:—

Year.	From the City.	From Shipboard.	From Docks.	Total.	Plague Infected.
1913	366	657	213	1,236	—
1912	114	583	79	776	—

## EXAMINATION OF LOCH KATRINE WATER AS DRAWN FROM LABORATORY TAP, 1913.

Month.	Average No. of Bacteria in 1cc. as estimated in gelatine plate at Room Temperature.	Bacillus Coli present (+) or absent (-) in			Other bacilli of the B. Coli family present (+) or absent (-) in		
		10cc.	5cc.	1cc.	10cc.	5cc.	1cc.
January, - -	45	-	-	-	+	+	+
February, - -	60.5	+	+	-	+	+	+
March, - - -	21	+	-	-	+	+	-
April, - - -	33.5	+	-	-	+	-	-
May, - - -	20.5	-	-	-	+	-	-
June, - - -	16	-	-	-	+	-	-
July, - - -	29	-	-	-	-	-	-
August, - - -	46.5	-	-	-	-	-	+
September, - -	49	-	-	-	+	+	-
October, - - -	21.5	-	-	-	+	+	-
November, - -	26.5	-	-	-	+	+	+
December, - -	21.5	-	-	-	+	+	+

*Bacillus Enteritidis Sporogenes* was absent in 10cc. and *Streptococci* in 50cc. throughout the period.

R. M. BUCHANAN,  
*Bacteriologist.*

## HOSPITALS AND RECEPTION HOUSES.

AN ACCOUNT OF THE HOSPITAL ACCOMMODATION AVAILABLE FOR PERSONS SUFFERING FROM INFECTIOUS DISEASE (INCLUDING THE MEANS PROVIDED FOR THE CONVEYANCE OF SUCH PERSONS), AND OF THE HOUSES OF RECEPTION, WITH OBSERVATIONS ON THE FURNISHING, MAINTENANCE, ADMINISTRATION, AND ADEQUACY OF SUCH ACCOMMODATION, &c.

(a) *Hospitals*.—Table XLIX. of the Appendix contains a statement of the number of beds available for epidemic disease at various periods since 1865, with the relative proportion per thousand of the population.

Appendix Tables Nos. XLVII., XLVIII., and L. show the duration and cost of treatment in Hospital.

## ROBROYSTON HOSPITAL.

REPORT BY THE MEDICAL OFFICER OF HEALTH TO LOCAL GOVERNMENT BOARD, IN TERMS OF THEIR MEMORANDUM ON SITE, &c., OF HOSPITAL FOR INFECTIOUS DISEASE, DATED AUGUST 31st, 1899.

**SITE.**—The Board are already familiar with the site on which it is proposed to erect the new hospital at Robroyston. The area available for hospital purposes extends to 54 acres, and is situated on rising ground to the east and south of the main road from Glasgow to Lenzie.

**WARDS.**—The wards and principal administrative buildings are situated on the plateau, and the entrance is from the western boundary of the ground. The distance between the main road already referred to and the nearest ward is fully 900 feet. The administrative kitchen and store blocks are to the west of the wards, while the laundry and clearing-houses are situated on the lower ground between these latter and the roadway.

The plans show 21 pavilions, accommodating in all 602 adults. Fourteen of these pavilions are arranged in large double wards, containing 14 beds each, or 392 in all, with an allowance of 2,000 cubic feet per bed. On the other hand, 7 pavilions are designed to accommodate 30 beds each, or 210 in all.



The provision here is in the form of separate rooms of varying size, entering off a common verandah, and capable of containing 2-5 beds, with cubic space allowance of 2,500 cubic feet per bed. These latter are intended to segregate the more severe cases during a smallpox epidemic, and they are alone at the moment, being erected as being best adapted for the hospital treatment of consumption in the absence of smallpox.

**WATER SUPPLY.**—I understand from an enquiry made by the Engineer that an ample supply of water may be obtained from the North Cadder Water District, and will be available without provision of a water tower for every purpose, including fire, in all the buildings proposed to be erected.

**DRAINAGE.**—It is proposed to treat the sewage bacteriologically, the tank and filter-beds being situated in the line of the present pools, which are shown on the survey plan on the north-east of the site.

The effluent will be discharged into a burn which lies to the north of the Lenzie Road, east of Robroyston House, and passes within 300 feet of the bottom pool. The burn ultimately joins the Luggie Water, a tributary of the River Kelvin.

**POPULATION.**—The district in the immediate neighbourhood is sparsely populated. Mossbank School is the nearest building of considerable size, and the greater portion of its buildings are just beyond the three-quarters of a mile radius.

**ORIENTATION OF THE WARDS.**—The main direction, as shown on the plan, is east and west, and open verandahs are provided in each of the 7 pavilions now to be erected.

The immediate purpose of the building is for the treatment of consumption, and the following description refers only to the 7 pavilions of separate rooms:—

The total outside measurement extends to 270 feet in length, with an average width of 30 feet for the five-bed wards and 19 feet for the two- and three-bed wards.

**INTERNAL MEASUREMENTS.**—(a) *Five-Bed Wards.*—Each pavilion contains four of these, of the following dimensions:—

Length, ... ..	36 feet.
Width, ... ..	26 „
Height to Ceiling from floor level, ...	13 feet 6 inches.
Height to Ridge from floor level, ...	22 „ 6 „
Height of Ridge from ground level varying	27-33 feet.
<i>Windows.</i> —It is intended to utilise the whole wall-space for this purpose so far as is consistent with stability.	
Total window area in walls, ... ..	about 240 superficial feet on each side.
Total floor area, ... ..	936 square feet.
Total cubic space, ... ..	12,636 feet.
Space between bed-centres, ... ..	12 „
Floor area per bed, ... ..	187 square feet.
Cubic space per bed, ... ..	2,527 cubic feet.

(b) *Three-Bed Ward.*—Each pavilion contains two of these, with the following dimensions:—

Length, ... ..	38 feet.
Width, ... ..	16 „
Height, ... ..	As for five-bed Ward.
Window space, ... ..	„ „
Total floor area, ... ..	576 square feet.
Total cubic space, ... ..	7,776 feet.
Space between bed-centres, ... ..	12 „
Floor area per bed, ... ..	192 square feet.
Cubic space per bed, ... ..	2,590 cubic „

• (c) *Two-Bed Ward*.—There are 2 such in each pavilion, of the following dimensions:—

Length, ... ..	24 feet.
Width, ... ..	16 „
Total floor area, ... ..	384 square feet.
Total cubic space, ... ..	5,184 cubic „
Floor area per bed, ... ..	192 square „
Cubic space per bed, ... ..	2,592 cubic „

The design of this pavilion has been determined by several considerations. In the first place, it has been thought desirable, irrespective of the nature of the disease, to provide for the segregation of degrees of severity and mixed infection, and to combine this with a certain economy in staffing.

**WARD OFFICES.**—Two kitchens are supplied, one to each half of the pavilion, and there are four sets of sanitary conveniences, two being adjacent to each other in the centre.

Each kitchen annexe contains—

Kitchen,  
Scullery,  
Larder,  
Linen closet, and  
Nurses' water-closet.

Each sanitary annexe contains—

One bath-room,  
Two wash-hand basins,  
One water-closet, and  
Cleaners' sink.

The sanitary annexes at the wings have an extra steep sink.

The structure of wards, together with the methods of heating and ventilation, are reported upon by the Engineer.

**NURSES' AND CLEANERS' CLEARING-HOUSES.**—This building consists of two sections—one of two storeys and one of one storey. The former is devoted to undressing and redressing rooms, and the latter to six bath-rooms. It is intended to be used during the prevalence of smallpox, and is a structural effort to prevent the transference of infection by methods which have had illustration in the past.

The two-storey portion of the building in its upper floor contains 19 bays with lockers. These bays will be used by the nurses and cleaners before leaving the hospital, in order that infected clothing may be left behind.

On the ground floor there are 18 redressing bays, together with 4 box-rooms for outdoor clothing.

**ADMINISTRATIVE BLOCKS.**—

Mortuary,  
Laundry and washing block,  
Clearing room for patients,  
Gate lodge, and  
Treatment of sewage

will all be dealt with by the Engineer.

I believe the buildings are well designed for the purposes for which they are intended.

A. K. CHALMERS,  
*Medical Officer of Health.*

Sanitary Chambers,  
Glasgow, July 31st, 1912.

(b) *Reception Houses*.—During the year, 222 contacts with infectious disease were accommodated in the Reception Houses, the details being shown in the following Table:—

Diseases.	Baird Street.		South York Street.		Total.	
	Number.	Days.	Number.	Days.	Number.	Days.
Smallpox, ... ..	...	...	6	30	6	30
Typhus Fever, ... ..	112	2,034	29	393	141	2,427
Enteric „ ... ..	7	109	23	246	30	355
Scarlet „ ... ..	8	110	1	28	9	138
Diphtheria, ... ..	2	19	...	...	2	19
Chickenpox, ... ..	1	22	...	...	1	22
Measles, ... ..	10	144	...	...	10	144
Whooping-cough, ... ..	1	26	...	...	1	26
Others, ... ..	27	341	2	4	29	345
Total, ... ..	168	2,805	61	701	229	3,506

#### REMOVALS BY PUBLIC CONVEYANCE OF PERSONS DEAD OF INFECTIOUS DISEASE.

Ten permits were granted under the Glasgow Police (Amendment) Act, 1890, Section II., for the removal of the bodies of persons who had died from infectious disease. In each case the precautionary measures were adopted of requiring the body to be inclosed in a zinc shell, and the coffin to be sprayed with formaline.

#### INTERMENTS IN INTRAMURAL BURYING-GROUNDS.

In accordance with the recommendation of the Corporation suspending the resolution of the Police Commissioners, of date 10th July, 1876, to permanently close the intramural burying-grounds as places of sepulchre, 4 permits were granted, 3 of which were for the High Church Burying-Ground, and 1 for North Street.

#### FRESH-AIR FORTNIGHT, EASTPARK COTTAGE HOME, AND T.S. “EMPRESS.”

During the year the lists of children selected for admission to the Homes in connection with the Glasgow United Evangelistic Association were submitted by the convener of that organisation for inspection, and those children residing in tenements found to be infected were refused for the time being.

The homes of all children admitted to Eastpark Cottage Homes for Infirm Children were also visited and reported on, as were also the homes of boys belonging to Glasgow granted leave of absence from the training ship “Empress.”



## SECTION III.

## GLASGOW PORT LOCAL AUTHORITY.

## SUMMARY OF WORK DURING THE YEAR 1913.

2,046 vessels from foreign ports passed the Boarding Station at Greenock bound for the Customs Port of Glasgow. This represents an average of 5·5 vessels per watch of twenty-four hours. The greatest number of vessels boarded in any single watch was 17.

Of these vessels, 491 had called at foreign ports which were “infected” within the meaning of the Cholera Order. The remaining 1,555 consisted of vessels from foreign non-infected ports, which, however, may be infected with smallpox or any of the infectious diseases outside the Cholera Order. In 1913, 269 vessels from Spanish smallpox-infected ports were boarded, and the crews specially examined.

Table A shows the vessels classified under the following groups:—

Group “A” shows the *arrivals from foreign*, as understood by the officers of H.M. Customs.

Group “B” includes all vessels trading with *infected ports*, and reaching the Clyde direct or through home ports, but with foreign cargo on board.

Group “C” includes vessels from infected ports reaching the Clyde *light* or with outgoing cargo on board.

Group “D” includes vessels from foreign non-infected ports reaching the Clyde direct or coastwise, loaded or light.

As already stated, Groups “B” and “C” of Table A total 491 vessels, all of which were boarded under the Cholera Order (Art. 8). Group “D,” consisting of 1,555 vessels, represents those from non-infected ports, and which were boarded, as every vessel arriving from foreign has to be, to ascertain whether infectious disease existed on board.

TABLE A.—NUMBER OF SHIPS ARRIVING FROM FOREIGN PORTS—YEAR 1913.

MONTH.	(A) H.M. Customs.	FROM INFECTED PORTS.						Total of B and C.			(D) From Non- Infected Ports (with or without Cargo).			TOTAL.		
		(B) With Foreign Cargo.			(C) Light or with Outward Cargo.											
		Ships	Crew.	Pass.	Ships	Crew.	Pass.	Ships	Crew.	Pass.	Ships	Crew.	Pass.	Ships	Crew.	Pass.
January,	87	15	930	7	14	676	2	29	1,606	9	121	6,018	1,223	150	7,624	1,232
February,	111	17	1,442	11	18	895	4	35	2,337	15	123	4,935	935	158	7,272	950
March, -	103	13	975	5	27	1,489	5	40	2,464	10	131	6,898	1,296	171	9,362	1,306
April, -	113	14	934	7	30	1,714	10	44	2,648	17	143	5,482	1,277	187	8,130	1,294
May, -	113	21	1,557	14	24	1,185	10	45	2,742	24	130	6,143	2,425	175	8,885	2,449
June, -	106	13	1,252	5	27	1,330	11	40	2,582	16	115	6,165	5,405	155	7,747	5,421
July, -	98	21	1,237	14	28	1,413	21	49	2,650	35	132	6,026	5,171	181	8,676	5,206
August, -	113	10	774	19	28	1,510	7	38	2,284	26	144	6,290	3,380	182	8,574	3,406
September,	123	27	1,881	22	12	1,008	17	39	2,889	39	128	6,835	3,225	167	8,654	3,264
October, -	119	21	1,228	9	20	1,177	6	41	2,405	15	136	6,034	3,303	177	8,439	3,318
November,	115	18	1,131	5	24	1,216	11	42	2,347	16	124	5,883	3,826	166	8,230	3,842
December,	123	16	1,089	...	33	1,691	8	49	2,780	8	128	5,791	5,791	177	8,571	5,799
TOTAL,	1,329	206	14,430	118	285	15,304	112	491	29,234	230	1,555	72,500	37,257	2,046	100,164	37,487

The following comparison is of interest as showing the yearly number of persons forming the crews and passengers:—

Year.	Ships.	Crews.	Passengers.	Registered Tonnage of Vessels Boarded.
1905, ...	2,010	75,468	13,156	3,365,302
1906, ...	2,063	79,773	17,822	3,562,703
1907, ...	1,997	80,212	21,744	3,661,807
1908, ...	2,096	81,050	22,917	3,814,630
1909, ...	2,081	82,037	16,826	3,908,700
1910, ...	2,183	88,013	16,683	3,940,291
1911, ...	2,167	91,727	27,564	3,997,318
1912, ...	1,896	89,103	31,054	3,900,296
1913, ...	2,046	100,164	37,487	4,323,690

Table A shows further, under Groups "B," "C," and "D," the arrivals for each month of the year, as also the numbers of crews and passengers.

In Table B particulars are given as to the nationality of the 2,046 ships shown in Table A and their crews.

On 1,587 British vessels there were 69,724 seamen of British nationality, with a proportion of European seamen, and 21,415 seamen of mixed nationality, mostly Asiatics.

On board 459 vessels of foreign nationality were 9,025 foreign seamen.

TABLE B.—NATIONALITY OF SHIPS AND THEIR CREWS, 1913.

Nationality.	Ships.	Crews.
British, ... ..	1,587	69,724
Natives of India, ... ..	(On British Ships),	18,079
Chinese, ... ..	do.,	3,253
Arabs, ... ..	do.,	60
Negroes, ... ..	do.,	8
West Africans, ... ..	do.,	13
Japanese, ... ..	do.,	2
Norwegians, ... ..	216	3,730
Swedish, ... ..	33	532
Spanish, ... ..	68	1,597
French, ... ..	23	511
German, ... ..	34	683
Austro-Hungarian, ... ..	18	502
Italian, ... ..	7	168
Russian, ... ..	5	150
Greek, ... ..	17	376
Danish, ... ..	19	335
Dutch, ... ..	16	356
Argentine, ... ..	1	31
Finnish, ... ..	1	21
Portuguese, ... ..	1	33
Totals, ... ..	2,046	100,164

Table C shows the arrivals of Table A, grouped according to whether they arrive direct from foreign or coastwise, their nationality, registered tonnage, and motive power.

Vessels coming coastwise are usually in water-ballast or partly loaded with outgoing cargo, occasionally also with part inward cargo.

TABLE C.—NUMBER, CLASS, AND TONNAGE OF VESSELS BOARDED AT  
TAIL OF THE BANK, 1913.

Voyage.	Nationality.	Class.	No. of Vessels.	Registered Tonnage.
Direct, ... ..	{ British, ... ..	{ Steam, ... ..	841	1,944,616
		{ Sailing, ... ..	4	1,578
	{ Foreign, ... ..	{ Steam, ... ..	230	259,953
		{ Sailing, ... ..	27	36,492
Coastwise, ... ..	{ British, ... ..	{ Steam, ... ..	742	1,890,279
		{ Sailing, ... ..	—	—
	{ Foreign, ... ..	{ Steam, ... ..	200	187,376
		{ Sailing, ... ..	2	3,396
			2,016	4,323,690

Table C shows an increase in the total registered tonnage of vessels from foreign, bound for Glasgow during 1913, of over 420,000 tons, this being by far the greatest increase in any year since 1905. This great increase in tonnage is the more notable in that the number of arrivals for 1913 was slightly below that of previous years, and points to the increased size of ships now being built.

TABLE D.—RETURN OF INFECTIOUS DISEASES ON BOARD SHIPS BOUND FOR  
THE PORT OF GLASGOW DURING THE YEAR 1913.

Diseases.	Total Number of Cases.	Cases Found on Arrival.	Cases Dealt with in other Ports.	Cases Sent to Hospital in Glasgow.	Cases Sent Home.	Deaths.
Cholera, ... ..	...	...	...	...	...	...
Plague or Suspected, ...	1	...	1	...	...	...
Smallpox, ... ..	2	...	2	...	...	...
Enteric Fever, ... ..	18	8	9	8	...	1
Measles, ... ..	13	8	5	8	...	...
Chickenpox, ... ..	7	6	1	6	...	...
Scarlet Fever, ... ..	5	4	1	4	...	...
Diphtheria, ... ..	3	1	1	1	...	1
Erysipelas, ... ..	...	...	...	...	...	...
Phthisis, ... ..	26	20	5	3	17	10
Trachoma, ... ..	12	12	...	...	12	...
Dysentery, ... ..	5	...	3	...	...	2
Diarrhœa, with temp., ...	3	3	...	...	3	...
Pneumonia, ... ..	6	2	1	...	2	3
Glandular Swelling or Abscesses, with Fever.	2	1	1	...	1	...
Parotitis, ... ..	1	1	...	1	...	...
Observation, or ... ..	6	6	...	6	...	...
Surveillance, ... ..	2	2	...	...	2	...
Beri-beri, ... ..	22	1	21	...	1	2
Pertussis, ... ..	3	3	...	1	2	...
Tetanus, ... ..	...	...	...	...	...	...
Tonsillitis, ... ..	5	5	...	...	5	...
Influenza, ... ..	3	3	...	...	3	...
Bubos (Venereal), ... ..	...	...	...	...	...	...
Other Tubercular, ... ..	7	6	...	...	6	1
Unknown, ... ..	2	...	2	...	...	...
Totals, ... ..	154	92	53	38	54	11



Table D shows the nature and the distribution of the infectious diseases met with during the year 1913. The first column shows the totals, and the others the destination, whether hospital or home, of those found on arrivals at the Tail of the Bank.

The total number of cases noted was 154 in 1913, as compared with 96 in 1912 and 108 in 1911. Column 2 shows that 92 cases were actually found on arrival, 38 of which were sent to Ruchill or Belvidere Hospitals, and 54 to their homes with the necessary sanitary precautions, or to the City Infirmary.

Deaths to the number of 11 occurred during the year, of which 8 were buried at sea—3 pneumonia, 2 dysentery, 1 enteric, 1 diphtheria, and 1 tubercular. One case of phthisis died at the Tail of the Bank. The body was carried on to Glasgow, and thence to Edinburgh for interment. Two deaths occurred from beri-beri—1 at Zaandam and 1 at St. Vincent.

Column 3 of Table D shows those cases which were dealt with in other ports, home and foreign. They numbered 53, and were chiefly of interest on account of the presence of contacts on board still within the incubation periods. Such vessels were disinfected and dealt with as necessary in Glasgow.

The most prominent diseases shown in Table D are laid forth in detail in the following pages:—

#### CHOLERA AND PLAGUE.

No case of cholera or plague came within the notice of the Medical Officers at the Tail of the Bank during 1913. Certain vessels landed cases of suspected plague in foreign ports, on the voyage to Glasgow, but subsequent information did not confirm the diagnosis of pestes.

Special precautions were taken with the crews of all vessels from Eastern ports, also from the Black Sea, the Argentine Republic, and the western ports of South America. Rat-guards were ordered on the moorings of these and all grain-carrying vessels. Cholera was epidemic for the most of the year in Constantinople, Kherson, Nicolaieff, Odessa, Salonica, Varna, Hungary, Bucharest, Vienna, Broka, and Bosnia. All vessels from these *quarters were examined with special care.*

#### SMALLPOX.

Smallpox, as in 1912, has been epidemic along the Spanish coast, especially to the south, where Almeria, Seville, Barcelona, and Valencia are noted as infected.

The crews of vessels from these ports, on arrival at the Tail of the Bank, were mustered and individually examined; also lists of their crews, with names and addresses, were sent to Glasgow office.

Vessels arrived from other ports infected with smallpox, *e.g.*, Alexandria and further Eastern ports distant enough to be outwith the incubation period.

## PHTHISIS.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913				
Jan. 20	S.S. "California"	New York and Merville	1	A ship's steward, age 20 years. Isolated in ship's hospital. Home—58 Holmhead Street, Glasgow. Disinfected in Glasgow.
Feb. 2	S.S. "Scandinavian"	Portland, Mn.	1	Deported steerage male passenger. Address—10 Moir Street, Glasgow. Going to Bellefield Sanatorium.
May 3	S.S. "Letitia"	St. John, N.B.	1	Saloon passenger, age 24 years. Married female. Isolated in cabin. Nine months in Canada. Returned home to Dalmellington, Ayrshire.
„ 15	S.S. "Pretorian"	Montreal and Quebec	2	(1) A deported Scotchwoman, age 47 years. Married. Two years and three months in Canada. Returning home—Begg's Buildings, Abbeyhill. (2) A deported male, Scotch. One year and two months in Canada. Returning to Calder Street, Motherwell.
„ 20	S.S. "Saturnia"	„	1	A male steerage passenger, age 26 years. Died 20th May, 1913—the morning of arrival. Body carried on to Glasgow.
„ 25	S.S. "Scandinavian"	„	1	A female steerage passenger, age 28 years. Proceeding to her home—Paisley Road, Glasgow.
June 2	S.S. "City of Bombay"	Rangoon	1	A native coal-trimmer, age 18 years. Removed to Infirmary, Glasgow.
„ 30	S.S. "Columbia"	New York	1	A deported male, Scotch. Over two years in U.S.A. Proceeding to his home—45 New Street, Rutherglen.
July 6	S.S. "Cameronia"	„	2	(1) An assistant steward, age 29 years. Sickened on 1st July with hæmoptysis. Isolated in ship's hospital. Removed to Ruchill. (2) A female steerage passenger. Landed in Merville. Disinfection in Glasgow.
„ 12	S.S. "Arundale"	Norfolk, Va., and Newport	1	An A.B., age 30 years, been fifteen months on vessel. Ailing for five months. Going home—2 Patrick Street, Cardiff.
„ 14	S.S. "Grampian"	Montreal	1	A deported male passenger. Went to Canada two years ago for his health. over two years sick. Returning to home—Coatbridge.
Aug. 18	S.S. "Clan Macneil"	Port Pirie, Mauritius	1	A Lascar Topaz. Landed at Mauritius on 22nd June, 1913. Disinfection of vessel done in Rotterdam.
	Carry forward,		14	

PHTHISIS.—*Continued.*

Date	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913	<i>Brought forward,</i>		14	
„ 25	S.S. “Clan Macalister”	Madras Coast	2	(1) A native fireman. Landed at Madras, 21st June, 1913. (2) Native second cook. Landed at Tuticorin, 1st July, 1913. No disinfection until arrival in Glasgow.
„ 31	S.S. “Pretorian”	Montreal	1	A deported female. Isolated in ship's hospital. Resided in Canada one month. Home—Co. Antrim, Ireland.
Sept. 13	S.S. “Saturnia”	„	1	A female alien passenger, age 43 years, Russian emigrant. Resided in Canada for three months. Returned to Russia.
Oct. 27	S.S. “Pretorian”	Montreal and Quebec	1	A deported female steerage passenger. Isolated in her cabin. Resided five months in Canada. Home in Dundee.
Nov. 5	S.S. “Mongolian”	Philadelphia	1	A deported male alien. Proceeding to Risør, Norway.
„ 12	S.S. “Numidian”	Boston	1	A female second-class passenger, Scotch, age 32 years. Four years in U.S.A. Home, 47 White Street, Govan.
„ 14	S.S. “Hesperian”	Montreal and Quebec	1	A deported male passenger, Scotch, age 22 years. Resided five months in Canada (no address).
24	S.S. “Pretorian”	„	1	A rejected second-class male passenger. Proceeding to his home in Wishaw.
Dec. 12	S.S. “Mahronda”	Calcutta	1	A native fireman. Landed with his effects at Suez, 16th November, 1913. Quarters disinfected.
„ 13	S.S. “Scandinavian”	Portland, Me.	1	A deported male passenger, Scotch, age 23 years. Seven months in Canada. Home in Glasgow.
„ 20	S.S. “Hesperian”	Boston	1	A deported male alien, Italian, age 24 years. Nine months in U.S.A. Proceeding home to Italy.
			26	

Twenty-six cases of pulmonary tuberculosis were noted during the year, as compared with 30 in 1912 and 25 in 1911.

Of the 26 cases, 12 were deported from Canada and the United States of America, of which 9 were British and 3 alien; 1 was a rejected male Scotch emigrant; 4 were ordinary steerage passengers—all British; 8 were members of ships' crews—3 British and 6 natives of India; the remainder, 1 death—a Scotch steerage passenger, died on ship's arrival at the Tail of the Bank. The body was carried on to Glasgow, and thence to Edinburgh for interment.



## ENTERIC FEVER.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913 Feb. 18	S.S. "Olaf Kyree"	Seriphos and Algiers	1	An ordinary seaman, age 16 years, sick for 9 days, but not isolated. Removed to Belvidere.
April 5	S.S. "Grampian"	St. John	1	An A.B., sickened on 18th April. landed at Liverpool and effects disinfected by P.L.A. Disinfection in Glasgow. Crew list sent.
" 27	S.S. "Menelaus"	Dalney and Batavia	1	An A.B., sickened on 1st April, removed to hospital at Suez. No disinfection carried out.
" 27	S.S. "Catherine Park"	Bahia Blanca	1	An A.B., sickened 1st April, and landed at St. Vincent, 13th April. Quarters disinfected. No other case.
May 22	S.S. "Cassandra"	St. John and Norfolk	1	Third engineer, sickened 5th May. Isolated in ship's hospital. Removed to Belvidere Hospital.
" 22	S.S. "Moorby"	Hornillo Bay, Genoa	1	Messroom steward, sickened 15th May. Sent to Belvidere Hospital for observation.
" 25	S.S. "Sardinia"	Philadelphia, St. John	1	A greaser, sickened on 12th May, landed in St. John, 17th May. No other case on arrival here.
" 29	S.S. "Scindia"	Bombay and Marseilles	1	A lady saloon passenger, sickened 4th May, landed at Marseilles on 15th May. Disinfection by P.L.A.
June 9	S.S. "Pretorian"	Montreal and Quebec	1	An A.B., sickened on 28th May, landed on 29th at Montreal. Forecastle disinfected with carbolic wash.
July 24	S.S. "Crown of Granada"	Demerara, Barbadoes	1	A member of crew, sickened 7th July. landed Gravesend, 14th July. Disinfection by P.L.A.
" 27	S.S. "Letitia"	Montreal and Quebec	1	An A.B., sickened 18th to 22nd July. Isolated in ship's hospital. Removed to hospital, Glasgow, and quarters disinfected.
Sept. 19	S.S. "Hesperian"	"	1	A male steerage passenger, age 18 years, sickened 6th September. Treated as Mild enteric with pneumonia. Sent to Belvidere Hospital.
" 18	S.S. "Restormel"	Seville	1	Second mate, sickened 5th September. Isolated in cabin. Removed to Belvidere Hospital, with first mate, for observation. First mate had diarrhoea.
Oct. 19	S.S. "City of Glasgow"	Karachi, Port Said, Liverpool	1	A quartermaster, sickened 13th September. Died on 15th September, and was buried at sea. Hospital disinfected.
" 27	S.S. "Pretorian"	Montreal and Quebec	1	An A.B., sickened on 24th October. Isolated in ship's hospital. Removed to Belvidere Hospital. Disinfected in Glasgow.
Carry forward,			15	

ENTERIC FEVER—*Continued.*

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913	<i>Brought forward,</i>		15	
Nov. 20	S.S. "Scindia"	Marseilles and Liverpool	1	A lady first-class passenger, sickened on 30th October. Removed at Marseilles on 7th November. Disinfection carried out by P.L.A., Marseilles.
Dec. 10	S.S. "Tartary"	Rosario and Belfast	1	A return passenger (cattleman), said to have gone on board sick. Removed to hospital in Liverpool on 28th November. Quarters disinfected by P.L.A.
,, 13	S.S. "Scandinavian"	Portland, Me.	1	A male steerage passenger, age 28. Treated in ship's hospital with other patients. Removed to Belvidere Hospital. Sent list of contacts and their addresses.
			18	

Eighteen cases of enteric fever were noted, as compared with 8 in 1912 and 10 in 1911.

Eight cases were found on board ship on arrival, and were all removed to Belvidere Hospital, Glasgow, and disinfection of the vessels was carried out. Of the remaining 10 cases, 1 died and was buried at sea; the other 9 were dealt with in other ports, home and foreign, the contacts and vessels being dealt with in Glasgow.

## MEASLES.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913				
April 13	S.S. "Cameronia"	New York	1	A male child, aged 4 years. A steerage passenger. Isolated in ship's hospital. Removed to Belvidere Hospital.
May 2	S.S. "City of London"	Calcutta	3	Three children, first-class passengers. One landed at Marseilles on 13th April, 1913, and two at London on 19th April, 1913. Disinfection by ship's surgeon.
,, 11	S.S. "Cameronia"	New York	1	A rejected female steerage passenger, age 22 years. Landed for hospital at Merville, from ship's hospital.
,, 15	S.S. "Pretorian"	Montreal and Quebec	1	A female child, age 2 years, steerage passenger. In ship's hospital with mother. Removed to Belvidere Hospital.
,, 19	S.S. "California"	New York	1	A female second-class passenger. Isolated in ship's hospital. Removed to Belvidere Hospital. Home, Spittal St., Edinburgh.
,, 20	S.S. "Saturnia"	Montreal and Quebec	1	A boy, age 4 years, steerage passenger. Isolated in ship's hospital with mother. Contacts isolated in starboard hospital. Removed to Belvidere Hospital. Home in Nairn.
,, 25	S.S. "Scandinavian"	,,	1	A male child, age 2½ years, second-class passenger. Isolated in ship's hospital with mother. Removed to Belvidere Hospital. Ship's hospitals locked, as usual, until disinfected.
June 15	S.S. "Saturnia"	,,	1	An A.B., age 30 years. Isolated in ship's hospital. Removed to Belvidere Hospital. Forecastle disinfected in Glasgow.
,, 17	S.S. "Cairo"	Bilbao	1	An A.B., age 26 years. Landed in Bayonne, 4th June, 1913. Disinfection done in Glasgow.
,, 29	S.S. "Hesperian"	Montreal and Quebec	1	A stewardess. Removed to Belvidere Hospital.
July 27	S.S. "Letitia"	,,	1	A female child, age 1½ years, second-class passenger. Rash disappeared on 22nd. Phoned particulars, Glasgow. Home, Medwin Cottage, Carnwath.
			13	

Thirteen cases of measles were met with during 1913, as compared with 12 in 1912 and 2 in 1911.

Eight of the 13 cases were found on arrivals at the Tail of the Bank, and 5 had been landed at and dealt with in other ports, *e.g.*, Merville, London, &c. All the 8 cases were sent to Belvidere Hospital. Five of the measles cases were adults, of which 3 were members of crews, 1 was a rejected Scotch emigrant (female), and 1 a female second-class passenger.

## SCARLET FEVER.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913				
May 29	S.S. "Driva"	Burriana and Valencia	1	An A.B., age 27 years, sickened 24th May, In his own bunk in forecastle. Removed to Belvidere Hospital.
June 29	S.S. "Hesperian"	Montreal and Quebec	1	An assistant steward, age 19 years, sickened on 20th June, and landed in Montreal on 20th June. Ship's hospital disinfected with formaline and washed with hydrang. perch. solution.
Sept. 9	S.S. "Hesperian"	"	3	Three children, females, ages 5 years, 2 years, and 10 months, sickened on 17th and 18th September. Removed to Belvidere Hospital. Vessel's disinfection done in Glasgow.
			5	

Five cases of scarlet fever were met with during 1913, as compared with 3 during 1912.

Two were adults, and members of crew; One a steward, was landed in Montreal, and the other, an A.B., was treated in Belvidere Hospital, Glasgow. The remaining 3 cases occurred amongst the infant passengers of the s.s. "Hesperian." They were removed to and treated at Belvidere Hospital, Glasgow.

## CHICKENPOX.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913				
Jan. 12	S.S. "Cameronia"	New York and Merville	1	A steerage passenger, female child, age 2 years. Isolated in cabin. Removed to Belvidere Hospital. Sickened on 7th January. Home, Turriff.
Nov. 16	S.S. "Columbia"	"	1	A male second-class passenger. Family isolated in ship's hospital. Case removed at Merville. Disinfection in Glasgow.
June 22	S.S. "Scandinavian"	Montreal and Quebec	2	Two children, ages 4 years and 6 years, second-class passengers. Isolated in hospital with mother and a child who had had chickenpox. Removed to Belvidere Hospital.
Nov. 9	S.S. "Maidan"	Calcutta and Marseilles	1	A native Tindal, sickened on 29th October. No isolation on ship. Removed to Belvidere Hospital.
" 14	S.S. "Hesperian"	Montreal and Quebec	1	A steerage passenger's child. Isolated in hospital with mother and another child, age 2½ years. Patient removed to Belvidere Hospital.
Dec. 15	S.S. "Columbia"	New York and Merville	1	A female first-class passenger, age 4 years, sickened on December 10th. Isolated with mother in cabin. Removed to Belvidere Hospital.
			7	

Seven cases of chickenpox were met with in 1913, as compared with 2 in 1912.

One case was landed at Merville, and disinfection was carried out in Glasgow. The remaining 6 were removed to Belvidere Hospital on their arrival in Glasgow. These latter were all children, aged from 2 to 6 years, with the exception of 1 native Tindal.



## TRACHOMA.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913 June 2	S.S. "Columbia"	New York and Merville	1	An alien Scottish emigrant rejected by U.S.A. Isolated in hospital. Returning to his home in Ayr.
„ 30	Do.	„	2	Two female rejects. One Scotch, proceeding to French Street, Glasgow; the other an alien emigrant proceeding to Maxwell Street, Glasgow.
July 27	Do.	„	5	Five Chinamen, who went out in S.S. "Columbia," rejected in New York. Proceeding to boarding-house, Liverpool.
Aug. 24	S.S. "Letitia"	Montreal and Quebec	1	An alien reject. Russian. Returned to Russia.
Sept. 14	S.S. "Caledonia"	New York and Merville	1	A deported Chinaman, being sent to his home <i>via</i> Glasgow as a Consular passenger.
Dec. 15	S.S. "Columbia"	„	2	Two female aliens, Austrian Poles, rejected in New York. One a severe case and one very mild. Both returning to Austria at once.
			12	

Twelve cases of trachoma were rejected or deported from the U.S.A. and Canada during 1913, as compared with 9 in 1912 and 8 in 1911.

One female Scotch emigrant returned to Glasgow; 5 Chinese emigrants returned to Liverpool; 1 Chinese deport was returned as a Consular passenger; 3 alien emigrant females returned to Russia and Austria; and 2 alien Scotch emigrants returned -1 to Ayr, and 1 to Glasgow.

## BERI-BERI.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913 June 5	S.S. "Netherby Hall"	Rangoon, Zaandam, Newport (Mon.)	10	Ten Lascars of ship's crew sickened, and four were removed to hospital at Zaandam on 16th May, where <i>one died</i> . Six more cases were landed at Newport on 28th May. A new crew was taken on board at Newport. All on board were found to be well.
July 24	Barque "Sound of Jura" (British)	So. Georgia & St. Vincent	9	Nine men of crew sickened about 15th May, and were landed at St. Vincent on 18th June. A new crew was shipped (except four) at St. Vincent. All well on arrival.
Aug. 17	S.S. "Jason"	Hankow & Rotterdam	2	Two Chinese firemen sickened on 3rd August. Both were removed to hospital in London, where one died. Rest of crew well on arrival.
Nov. 9	S.S. "City of Bristol"	Bangkok & Hamburg	1	A Lascar Tindal, still ailing but improving, and about to undertake duty.
			22	

Twenty-two cases of beri-beri were reported on arrivals at the Tail of the Bank during 1913, as compared with 9 in 1912 and 9 in 1911.

One case only was found on board ship on arrival at the Tail of the Bank, and this case nearing convalescence. Prompt measures were taken in the removal of the two crews of the s.s. "Netherby Hall" and the barque "Sound of Jura," the infected crews having been sent ashore and new ones shipped, the former at Newport, and the latter at St. Vincent. The remaining two, Chinese firemen of the s.s. "Jason," were landed and dealt with in London. The necessary disinfective precautions were attended to in Glasgow.

## PNEUMONIA.

Date.	Name of Vessel.	Where from.	No. of Cases.	Remarks.
1913				
April 25	S.S. "Clan Macgregor"	Port Pirie	1	A fireman Tindal sickened on 5th April. Died and was buried at sea. Effects destroyed. Quarters disinfected.
May 11	S.S. "Cameronia"	New York	1	A trimmer, age 26 years, sickened on 6th May. Isolated in ship's hospital. Removed to Western Infirmary.
Aug. 21	S.S. "Hesperian"	Montreal and Quebec	1	An alien steerage passenger (Pole) sickened on 16th August. Died on 20th August, and was buried at sea.
Oct. 19	S.S. "Ghazee"	Liverpool	1	An A.B. sickened on 11th October. Isolated in ship's hospital. Removed to Infirmary.
Dec. 6	S.S. "Castalia"	Bombay and Cardiff	1	An A.B. died and was buried in the Red Sea.
May 25	S.S. "Sardinia"	Philadelphia	1	A greaser sickened on 12th May. Landed at St. John on 17th.
			6	Three other cases occurred on outward voyage, and this one was at first diagnosed enteric, but later at St. John as pneumonia.

Six cases of pneumonia were noted during 1913, as compared with 10 in 1912.

There were 2 cases met with on board ship at the Tail of the Bank, both of which were removed to the Western Infirmary; 3 died, and were buried at sea, and 1 was landed at St. John. The cases consisted of 2 seamen (natives of India), 3 seamen (British), and 1 alien passenger (Pole).

TABLE E.—NUMBER AND NATIONALITY OF VESSELS ON WHICH DEFECTS WERE FOUND DURING THE YEAR 1913.

Nationality.	DEFECTS FOUND ON—	
	Steam.	Sailing.
British, ... ..	152	2
Norwegian, ... ..	24	1
Spanish, ... ..	10	—
Swedish, ... ..	5	—
Danish, ... ..	1	—
French, ... ..	1	4
German, ... ..	3	—
Italian, ... ..	2	—
Greek, ... ..	4	—
Total, ... ..	202	7

Table E shows the number and nationalities of vessels, steam and sailing, on which defects were found during 1913. The total numbers of vessels with defects are shown for 1913 to have been 202 steam and 7 sailing, as compared with 257 steam and 14 sailing in 1912, and 378 steam and 16 sailing in 1911.

Of those on which defects were found the greatest number appears on British vessels, but as compared with foreign vessels the percentage is less. A considerable decrease as compared with previous years is also noticeable; this on account of constant trading with the Clyde and the great attention given to the sanitary conditions in this and other home ports. Foreign vessels also show a decrease in the number on which defects were found, and are mostly on vessels which are strange to this port. The decrease in the defects on sailing vessels is due to the diminishing numbers of this class of vessel.

Table F shows the defects found classified under—(a) due to Structural Defects, (b) to Repairs required, and (c) to Neglect or Filth Nuisances.

Under class (a) the numbers appear practically the same for the past three years. Class (b) shows a reduction of 27 for 1913, and class (c) a reduction of 17 for 1913. These decreases are due to the frequent inspection of vessels which are, many of them, regular traders to the Clyde, and to the addition of a certain number of vessels which are quite new.

Table F, under "Accumulation of Manure," shows that only two vessels imported live stock—one with a small number of sheep, and one with horses, both from Montreal. There were no cattle imported to Glasgow from Canada in 1913.

TABLE F.—STRUCTURAL DEFECTS AND NUISANCES FOUND ON VESSELS (BRITISH AND FOREIGN), YEAR 1913.

(a) DUE TO STRUCTURAL DEFECTS.		(b) TO REPAIRS REQUIRED.		(c) TO NEGLECT.	
Nature and Site.		Nature and Site.		Nature and Site.	
<i>Forecastsles.</i>		<i>Forecastsles.</i>		<i>Forecastsles.</i>	
Insufficient heating, ...	—	Bogies broken, ...	...	Floors and woodwork dirty, ...	67
Do. lighting, ...	1	Ports broken and leaking, ...	...	Ship's gear stored in bunks, ...	5
Do. ventilation, ...	6	Steam-heaters leaking, ...	...	Ventilators plugged, ...	2
Do. sleeping accommodation, ...	5	Over-head deck leaking, ...	...	Scuppers choked, ...	5
Do. seating do. ...	—	Doors broken off food lockers, ...	...	Re-painting or lime-washing required, ...	25
Anchor chains uncovered, ...	1	Floors broken, ...	...	Verminous, ...	1
Scuppers too high, ...	—	Bunks broken, ...	...	Food stored in bunks and forecastsles, ...	3
No doors on food-lockers, ...	—	Doors on bulkhead broken, ...	...	Drinking-water barrel in forecastsles, ...	1
Danger of fire from bogie, ...	—	Forecastle door broken, ...	...	Do. tanks uncovered, ...	2
Fore-peak not partitioned off, ...	—	Forepeak tank leaking, ...	...	Rat-infested, ...	3
		Anchor chain casing broken, ...	...	Bilges unclean, ...	1
				Pantry and storeroom dirty, ...	1
				Forepeak in dirty condition and smelling, ...	1
<i>Water-closets.</i>		<i>Water-closets.</i>		<i>Water-closets.</i>	
Insufficient accommodation, ...	3	Seats broken, ...	...	Pan or trough choked or foul, ...	78
		Ports broken, ...	...	Ship's gear stored therein, ...	13
		Trough or pan broken, ...	...	Gear stored in bathroom, ...	5
		Flush tank broken, ...	...	Scuppers choked, ...	13
		Floors broken, ...	...	Lime-washing or re-painting required, ...	2
		Doors off or broken, ...	...	W.C. urinal choked, ...	1
		Plug broken, ...	...		
		Effluent leaking, ...	...		
<i>Decks.</i>		<i>Decks.</i>		<i>Decks.</i>	
				Accumulation of manure, ...	1
				Do. rubbish, ...	2
				Galley dirty, ...	1
				Drinking-water tanks uncleaned, ...	5
				Bilges uncleaned, ...	—
				Bathroom dirty, ...	1
				Do. scuppers choked, ...	—
				Do. food stored therein, ...	3
Total, ...	16		95		242



TABLE G.—INSPECTION of SHIPS.

	1907.		1908.		1909.		1910.		1911.		1912.		1913.	
	Steam.	Sail- ing.	Steam.	Sail- ing.	Steam.	Sail- ing.	Steam.	Sail- ing.	Steam.	Sail- ing.	Steam.	Sail- ing.	Steam.	Sail- ing.
(a) Carefully inspected,	893	27	544	15	555	12	509	22	558	12	768	22	1,494	...
(b) Partially inspected,	1,003	20	1,470	22	1,433	26	1,571	31	1,511	26	1,059	8	518	...
(c) { Boarded, but not inspected,	12	...	16	...	26	1	22	...	...	...	16	...	10	...
(c) { Hailed, do.	18	...	6	...	4	...	9	...	25	1	17	...	7	...
(d) Not boarded nor hailed, ...	24	...	23	...	21	3	19	...	34	...	6	...	17	...
	1,950	47	2,059	37	2,039	42	2,130	53	2,128	39	1,866	30	2,046	...
	47		37		42		53		39		30		...	
Total, ...	1,997		2,096		2,081		2,183		2,167		1,896		2,046	

The above Table of Inspection of Vessels gives the proportion and relative numbers inspected "carefully," "partially," &c., as compared with previous years. The manner and completeness of inspection must vary with the tide and time available, also occasionally on account of the weather. The numbers, however, show a considerable evenness in their yearly occurrence.

The matter of the side-ladders still remains one of great importance to all who board these vessels, although improvement with time may be admitted from constant complaining to the shipmasters. Yet the subject is of sufficient importance to be brought before the notice of the Board of Trade, with the object of obtaining a suitable ladder for general use.

#### POWER OF BOARDING VESSELS BY PORT LOCAL AUTHORITY.

Reference has already been made to the increasing number of unvaccinated persons in the population, and the risk of a smallpox epidemic incurred thereby. Infection might be imported at any time, as during the summer months large numbers of emigrants, as well as crews from ships trading with Canadian ports, are landed here, within the incubation period of the disease, from towns where it is known that cases of smallpox are occurring. Particulars of the numbers of such possible contacts are included in a paper on "Risks of Smallpox in view of the Declining Vaccination Returns of the Country," which was submitted to a meeting of the Port Sanitary Authorities' Association, and forms Appendix VI. to this report.

The following Statement, showing the cost of the Port Local Authority for the year ended 31st May, 1914, is taken from the Annual Abstract of Expenditure and Revenue prepared by the Treasurer:—

## EXPENDITURE.

## BOARDING STATION AT PRINCES PIER, GREENOCK—

Salary to Senior Assistant to Medical Officer, ... ..	£400	0	0
Salary to Junior Assistant to Medical Officer, ... ..	350	0	0
Fees (£27 18s.) and Expenses (£18 12s.) of <i>locum tenens</i> during holidays of Medical Assistants, ... ..	46	10	0
Wages to Inspectors (two) of Ships and Crews, ... ..	221	7	0
Insurance of Employees under Workmen's Compensation Acts, ... ..	0	4	5
National Insurance Act—Employers' Contributions (Health), ... ..	1	15	0
Wages (£18), and Board and Lodging Allowance (£10 13s. 9d.) to Inspectors relieving for holidays and sickness, ... ..	28	13	9
Uniform Clothing for Medical Assistants (£16 16s. 9d.) and Inspectors (£11 9s.), ... ..	28	5	9
Clyde Pilot Board—Contribution towards Upkeep of Steam Launch, ... ..	450	0	0
Rent of Site for Boarding Station, ... ..	10	0	0
Assessments and Insurance (Fire), ... ..	12	14	7
Heating (£10 13s. 6d.) and Lighting (£8 1s. 8d.), ... ..	18	15	2
Furnishings, Fittings, &c., ... ..	10	14	7
Repairs to Boarding Station (£8 6s.) and repairing Derrick, s.s. "Nathaniel Dunlop" (15 12s. 8d.), ... ..	23	18	8
Office Cleaner's Wages, ... ..	23	8	0
			£1,626 6 11

## GLASGOW HARBOUR—

Wages to Inspectors (two) of Ships and Crews (£168 5s. 6d.) and relieving for holidays (£4 15s.), ... ..	£173	0	6
Wages to Inspectors appointed under Public Health (Regulations as to Food) Act, 1907 (£232 3s.), and relieving for holidays (£4 12s.), ... ..	236	15	0
National Insurance Act—Employers' Contributions (Health), ... ..	2	0	0
Uniform Clothing for Inspectors, ... ..	8	17	6
Disinfectants, Bait, &c., ... ..	5	3	6
Visits of Medical Officer to 3 Vessels to ascertain nature of cases of illness on board, at 42s., ... ..	6	6	0
Removal to Epidemic Hospitals and Treatment of 64 Patients, at £8 8s. each (£537 12s.), and Hire of Ambulance (£13 1s.), ... ..	550	13	0
Maintenance of Contacts in Reception Houses, ... ..	6	18	0
Interment Charges (eleven cases), ... ..	10	14	0
Bacteriological Examinations at request of Medical Officer, ... ..	37	16	6
Washing Clothing and Disinfecting Ships (48 at 15s., 1 at 10s., and 3 at 5s.), ... ..	37	5	0
			1,075 9 0

## GENERAL AND ADMINISTRATIVE CHARGES—

Salary to Medical Officer of Health, ... ..	£50	0	0
Do. Sanitary Inspector, ... ..	50	0	0
Do. Veterinary Surgeon appointed under Public Health (Regulations as to Food) Act, 1907, ... ..	50	0	0
Do. to Clerk in Office of Medical Officer, ... ..	50	0	0
National Insurance Act—Employers' Contributions (Health), ... ..	0	13	0
Office of Sanitary Inspector (Proportion of Expense), ... ..	17	12	7
Office of Clerk to Local Authority Do. ... ..	30	0	0
Office of Treasurer, Do. ... ..	30	0	0
Auditors' Fee, ... ..	10	10	0
Stationery and Newspapers (£18 11s. 1d.), Printing (£7 3s. 3d.), and Advertising Audit (£1 16s. 1d.), ... ..	27	10	5
Printing Minutes, ... ..	32	18	0
Telegrams and Postages, ... ..	5	14	0
Railway and other Travelling Expenses, and Cab Hires, ... ..	33	16	0
Corporation of Glasgow, Tramways Department—Tramcar Checks, ... ..	6	6	0
Expenses of Deputations attending in London Meetings of the Association of Port Sanitary Authorities, ... ..	10	4	9
Annual Subscription to Association of Port Sanitary Authorities, ... ..	3	3	0
Expenses incurred forwarding Model of Vessel for exhibition at the International Marine Exhibition, Genoa, ... ..	15	4	8
Parliamentary Expenses opposing Clyde Lighthouses Order, 1912, ... ..	330	4	1
Corporation of Greenock, Public Health Department—Payment for year, in respect of which 6 beds are reserved in Craigieknowes Hospital for the accommodation of Patients, ... ..	72	0	0
Corporation of Glasgow, Chemical Department—Fees for analyses, ... ..	5	5	0
Telephonic Communication—			
Post Office Telephone Service—Exchange and Private Lines, ... ..	£20	15	0
Do. Trunk Dues, ... ..	5	15	11
	26	10	11
Sundry Petty Charges, ... ..	3	14	4
	£3,563	2	8
	£3,563	2	8

## REVENUE.

Proportion effeiring to the Port Local Authority of the Port of Glasgow for the year to 15th May, 1913, of the contribution of £15,000 payable under the Local Taxation (Customs and Excise) Act, 1890, towards the cost of Medical Officers and Sanitary Inspectors in Scotland, ... ..	£23	6	4
Amount received from Shipping Company for fumigating Vessel and for maintenance of Contracts in Reception House, ... ..	8	12	6
Contribution, under Article 6, Section IV., of Order, by the Local Authority of the Eastern District of the County of Dunbarton, ... ..	10	0	0

## BALANCE OF EXPENDITURE, met as follows:—

Agreed-on Contribution by the Local Authority of the Burgh of Clydebank, towards meeting the balance of expenditure (£3,516 3s. 10d.) of the Port Local Authority—said Contribution being based on the proportion which the gross valuation of the Burgh of Clydebank (£235,408) bears to the gross valuation of the Burgh of Glasgow (£7,485,831), ... ..	£110	11	6
Local Authority of the Burgh of Glasgow, ... ..	3,405	12	4
			3,516 3 10
			£3,563 2 8

## FOREIGN MEAT REGULATIONS.

The following Table gives the total quantities of food material landed in the Port of Glasgow during the year 1913, a percentage of which was examined under the Foreign Meat Regulations:—

<i>Beef.</i>				<i>Pork.</i>			
Quarters, ...	...	30,100		Mess, ...	...	2,727½	barrels.
Rumps, ...	...	1,246	tierces.	" ...	...	9	casks.
Mess, ...	...	2,420	"				
" ...	...	130	barrels.				
Boneless, ...	...	13,434	boxes.				
" ...	...	78,235	bags.				
" ...	...	2,192	cuts.				
<i>Veal.</i>				<i>Sundries.</i>			
Carcases, ...	...	51		Sheep and Lamb Hearts,			
Sides, ...	...	1,452		Ox Tongues, ...	...	54	bags or boxes.
Cuts, ...	...	329		Ox Kidneys, ...	...	28	" "
Bags, ...	...	459		Ox Tails, ...	...	2	" "
<i>Mutton.</i>				Pig Skins, ...	...	1,500	" "
Carcases, ...	...	121,342		Rabbits, ...	...	43	" "
Cuts, ...	...	39	bags.	Casings, ...	...	154	" "

*Destroyed.*

Boneless Beef, ...	...	930	bags.
Beef, ...	...	6	quarters.
" ...	...	2	cuts.
Boneless Beef, ...	...	298	boxes (exported).
Beef, ...	...	612	lbs.
Mutton, ...	...	28	carcases.

## UNSOUND FOOD REGULATIONS.

The following Table shows the amount of food stuffs inspected during the year, and the amount destroyed:—

MEAT—	No. of Packages.	Tons.	Cwts.	Qrs.	Lbs.	Examined.
Fresh and frozen, ...	1,314	53	8	0	0	10
Preserved, ...	62,110	2,305	12	2	9	581
Sundries, ...	397	18	0	0	26	31
FRUIT—						
Fresh, ...	1,076,840½	53,324	7	2	2	4,209
Preserved—Dried, ...	44,492	703	13	3	6	141
" Tinned and bottled, ...	95,369	2,032	5	3	24	553
Nuts, ...	19,256	992	16	3	10	274
VEGETABLES—						
Fresh, ...	255,867	730	18	0	0	508
		(819,765 bushels)				
Preserved—Tinned and dried, ...	110,354	7,986	12	1	16	254
PROVISIONS—						
Meal, flour, &c., ...	2,909,108	342,980	17	2	27	General.
Butter, cheese, &c., ...	141,737	8,400	15	1	16	698
Bacon, &c., ...	74,948	19,212	3	1	8	3,081
FISH—						
Preserved and tinned, ...	17,529	415	6	3	24	136
SUNDRIES, ...	39,840	5,158	18	1	7	518
		(33,187 gallons)				
	4,849,161½	444,315	17	0	7	11,054
		(819,765 bushels.)				
		(33,187 gallons.)				

## DESTROYED.

120 cases oranges, 165¾ barrels salted herring, 5 barrels pears, 12 tins oatmeal, 12 jars ham, chicken, and tongue, 24 tins condensed milk, 90 cases tinned salmon, 40 cases assorted fruits, 3 packages lemons, 8 barrels apples.



## SECTION IV.

AN ACCOUNT OF THE HOUSE ACCOMMODATION OF THE  
LABOURING CLASSES IN THE BURGH AND OF ANY  
PROCEEDINGS UNDER THE HOUSING OF THE  
WORKING CLASSES ACTS OR OTHERWISE.

## (A) GLASGOW POLICE (AMENDMENT) ACT, 1890, SECTION 32.

No action has been taken under this section since 1909.

## (B) HOUSING OF THE WORKING CLASSES ACT, 1890.

All the houses represented under this Act were inspected during the month of June, 1914, and the following Table shows the position of these as on that date:—

SUMMARY OF REPRESENTATIONS UNDER THE HOUSING OF THE  
WORKING CLASSES ACT, 1890.

Year of Representation.	Total Represented.	Buildings Demolished.	Buildings Closed.	Converted into Business Premises.	Repaired.	Failed to obtain Closing Order.	Agreement to Remove not carried out, and still occupied.	Action not taken to a termination.
1902	3	3	...	...	...	...	...	...
1903	32	22	4	1	1	1	...	3
1904	76	55	4	1	10	...	3	3
1905	100	41	8	7	16	1	2	25
1906	72	22	10	8	19	...	...	13
1907	40	6	8	2	9	...	...	15
	323	149	34	19	55	2	5	59

In certain cases action was again taken under the Housing, Town Planning, &c., Act, 1909, as shown in the following Summary. The results, however, are not included in the above Table.

Year of Representation under the Housing of the Working Classes Act, 1890.					Action again taken.			
					1910.	1911.	1912.	1913.
1902,	...	...	...	...	—	—	—	—
1903,	...	...	...	...	—	—	—	2
1904,	...	...	...	...	2	—	—	3
1905,	...	...	...	...	1	—	1	5
1906,	...	...	...	...	—	—	—	7
1907,	...	...	...	...	—	—	1	2
Total,	...	...	...	...	3	—	2	19

## (C) HOUSING OF THE WORKING CLASSES ACTS, 1890 to 1909.

During 1913 proceedings under these Acts were taken with regard to 591 houses in 90 tenements, which were represented as unfit for human habitation under Section 17 of the Act of 1909.

Of the houses represented, 265 were single apartments, 314 were two apartments, 11 three apartments, and 1 four-apartment house. Of one-apartment houses, 87 were unoccupied, and 94 two apartments; but in the occupied houses there were 1,037 adults and 419 children, making a total of 1,456.

The following Table gives a Ward distribution of the number and size of houses represented and the number of persons affected:—

## HOUSING, TOWN PLANNING, &amp;c., ACT, 1909.

## STATEMENT OF THE NUMBER OF HOUSES AND OF THE PERSONS AFFECTED IN EACH WARD, 1913.

WARD.	DATE.	ADDRESS.	HOUSES.				POPULATION.									
			Apartments.				1 Apt.		2 Apts.		3 Apts.		4 Apts.		Total.	
			1	2	3	4	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.
I.	10th April	192 Dalmarnock Rd.,	(1)2	...	...	...	3	...	...	...	...	...	...	...	3	...
II.	10th April	226/228 Moncur St.,	(4)10	...	...	...	11	2	...	...	...	...	...	...	11	2
	"	91 Kirk Street,	3	(1)5	...	...	6	4	10	4	...	...	...	...	16	8
	28th May	54 Bell Street,	4	3	...	...	9	1	9	7	...	...	...	...	18	8
	29th July	374 Gallowgate	3	(3)6	...	...	4	...	9	6	...	...	...	...	13	6
	8th Sept.	49/55 Green Street,	4	(3)7	...	...	7	2	9	1	...	...	...	...	16	3
	9th Oct.	41/45 King Street,	1	(4)6	...	...	3	...	11	...	...	...	...	...	14	...
	"	41 "	...	(4)6	...	...	...	...	5	3	...	...	...	...	5	3
	10th Nov.	89 "	1	(3)4	...	...	2	2	5	1	...	...	...	...	7	3
	"	1 Well Street,	1	7	1	...	2	...	16	4	5	1	...	...	23	5
	"	1 "	(2)4	2	...	...	3	1	4	1	...	...	...	...	7	2
	"	10 Main St.. Calton,	...	1	...	...	...	...	1	...	...	...	...	...	1	...
	"	1A St. Andrew's Sq.,	...	2	...	...	...	...	3	4	...	...	...	...	3	4
			(4)31	(18)49	1	...	47	12	82	31	5	1	...	...	134	44
III.	19th April	774 Gallowgate,—	2	...	...	...	4	...	...	...	...	...	...	...	4	...
	19th "	119 Broad Street,	(3)4	...	...	...	2	1	...	...	...	...	...	...	2	1
	21st April	62 Soho Street,	3	...	...	...	7	4	...	...	...	...	...	...	7	4
	5th June	496 Gt. Eastern Rd.,	1	(1)2	...	...	3	...	2	2	...	...	...	...	5	2
	"	520 "	1	(1)1	...	...	2	...	...	...	...	...	...	...	2	...
	"	540 "	...	2	...	...	...	...	4	3	...	...	...	...	4	3
	"	9 Yate Street,	(3)4	...	...	...	2	...	...	...	...	...	...	...	2	...
	1st July	768 Gt. Eastern Rd.,	1	2	...	...	2	2	6	2	...	...	...	...	8	4
	"	196 Westmuir St.,	...	1	...	...	...	...	2	3	...	...	...	...	2	3
	"	103 Crownpoint Rd.	(10)14	...	...	...	11	7	...	...	...	...	...	...	11	7
	25th Sept.	8 Duncan Street,	6	...	...	...	12	8	...	...	...	...	...	...	12	8
	"	8 "	7	4	...	...	14	7	18	6	...	...	...	...	32	13
	"	8/10 Coulter's Lane,	3	7	1	...	6	5	19	8	2	1	...	...	27	14
			(16)46	(2)19	1	...	65	34	51	24	2	1	...	...	118	59
IV.	25th Sept.	28/30 Coalhill St.,	1	3	1	...	3	...	13	3	5	...	...	...	21	3
IX.	1st July	37 Shuttle Street,	...	(7)16	...	...	...	...	27	8	...	...	...	...	27	8
	10th Nov.	10 Shuttle Lane,	(1)2	2	2	1	1	...	4	5	5	4	6	...	16	9
	22nd "	7 Ingram Street,	(1)2	1	...	...	3	3	3	...	...	...	...	...	6	3
	"	"	1	3	...	...	2	...	9	3	...	...	...	...	11	3
			(2)5	(7)22	2	1	6	3	43	16	5	4	6	...	60	23

The small figures in brackets show the number of empty houses of each size at each address at the time of representation.

STATEMENT OF THE NUMBER OF HOUSES AND OF THE PERSONS AFFECTED IN EACH WARD, 1913—*Continued.*

WARD.	DATE.	ADDRESS.	HOUSES.				POPULATION.										
			Apartments.				1 Apt.		2 Apts.		3 Apts.		4 Apts.		Total.		
			1	2	3	4	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Total.
IXA.	1st May	26 Rose Street,	...	16	...	...	...	...	54	18	...	...	...	...	54	18	72
	28th "	5 Thistle Street,	4	10	3	...	8	5	27	12	10	2	...	...	45	19	64
	"	113 Crown Street,	(1)3	(1)1	...	...	3	1	...	...	...	...	...	...	3	1	4
	"	52 Rose Street,	...	6	...	...	...	...	22	8	...	...	...	...	22	8	30
	"	60 "	...	(3)4	...	...	...	...	3	...	...	...	...	...	3	...	3
	10th Nov.	57 Thistle Street,	1	2	...	...	2	...	8	...	...	...	...	...	10	...	10
	"	57 "	(1)4	(1)4	...	...	6	2	11	6	...	...	...	...	17	8	25
	"	57 "	...	(2)12	...	...	...	...	32	8	...	...	...	...	32	8	40
	"	91 Rutherglen Rd.,	(2)3	(1)5	...	...	1	...	8	1	...	...	...	...	9	1	10
			(4)15	(8)60	3	...	20	8	165	53	10	2	...	...	195	63	258
X.	22nd Nov.	40 N. Frederick St.,	(1)4	(3)5	...	...	4	1	7	1	...	...	...	...	11	2	13
XII.	10th April	9 M'Alpine St.,	...	3	...	...	...	...	7	11	...	...	...	...	7	11	18
	24th "	75 Brown Street,	...	(2)3	...	...	...	...	3	...	...	...	...	...	3	...	3
	"	56 Carrick Street,	(1)3	...	...	...	5	2	...	...	...	...	...	...	5	2	7
	"	26 Brown Street,	...	2	...	...	...	...	5	...	...	...	...	...	5	...	5
	"	30 "	...	2	...	...	...	...	7	1	...	...	...	...	7	1	8
	"	40 "	...	2	...	...	...	...	3	3	...	...	...	...	3	3	6
			(1)3	(2)12	...	...	5	2	25	15	...	...	...	...	30	17	47
XIII.	1st May	37 Clyde Street,	...	2	...	...	...	...	5	6	...	...	...	...	5	6	11
	1st "	58 "	1	...	...	...	1	...	...	...	...	...	...	...	1	...	1
	3rd "	69 "	...	2	...	...	...	...	6	4	...	...	...	...	6	4	10
	5th "	80 "	...	4	...	...	...	...	12	4	...	...	...	...	12	4	16
	28th "	453 Argyle Street,	1	...	...	...	3	2	...	...	...	...	...	...	3	2	5
			2	8	...	...	4	2	23	14	...	...	...	...	27	16	43
XVI.	9th Oct.	163 Cowcaddens,	...	(4)9	...	...	...	...	11	7	...	...	...	...	11	7	18
	"	163 "	...	(8)12	...	...	...	...	11	9	...	...	...	...	11	9	20
	"	163 "	6	(6)9	...	...	...	...	9	6	...	...	...	...	9	6	15
	"	17 Ferguson St.,	(7)8	...	...	...	2	2	...	...	...	...	...	...	2	2	4
	"	7 W. Russell St.,	1	...	...	...	2	...	...	...	...	...	...	...	2	...	2
	10th Nov.	13 Sawmillfield St.,	2	...	...	...	4	2	...	...	...	...	...	...	4	2	6
	22nd "	160 Cowcaddens,	1	(7)12	...	...	2	1	17	7	...	...	...	...	19	8	27
	"	160 "	(1)4	(9)14	...	...	6	1	14	5	...	...	...	...	20	6	26
			(8)16	(34)56	...	...	16	6	62	34	...	...	...	...	78	40	118
XVIII.	30th May	15 Commercial Rd.,	1	1	...	...	2	...	2	3	...	...	...	...	4	3	7
	"	29 "	(1)4	...	...	...	6	3	...	...	...	...	...	...	6	3	9
	"	3/13 Wellington Lane	(6)6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	"	25/29 "	...	4	...	...	...	...	10	7	...	...	...	...	10	7	17
	"	198 S. Wellington St.,	(1)5	...	...	...	7	4	...	...	...	...	...	...	7	4	11
			(8)16	5	...	...	15	7	12	10	...	...	...	...	27	17	44

The small figures in brackets show the number of empty houses of each size at each address at the time of representation.



STATEMENT OF THE NUMBER OF HOUSES AND OF THE PERSONS AFFECTED IN EACH WARD, 1913—*Continued.*

WARD.	DATE.	ADDRESS.	HOUSES.				POPULATION.										
			Apartments.				1 Apt.		2 Apts.		3 Apts.		4 Apts.		Total.		
			1	2	3	4	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Total
XIX.	8th Sept.	16/18 Thistle Street,	(6)19	4	...	...	29	13	16	7	...	...	...	...	45	20	65
	25th „	3 Hospital Street,	(4)21	1	...	...	34	6	3	4	...	...	...	...	37	10	47
	10th Nov.	8 Bedford Street,	...	(2)4	...	...	...	...	4	...	...	...	...	...	4	...	4
			(10)40	(2)9	...	...	63	19	23	11	...	...	...	...	86	30	116
XX.	29th July	57 King Street,	(1)2	1	...	...	2	...	4	...	...	...	...	...	6	...	6
	„	69 „	...	(5)6	2	...	...	...	3	...	12	2	...	...	15	2	17
	„	69 „	5	(2)2	...	...	11	1	...	...	...	...	...	11	1	12	
	„	31 Dale Street,	...	4	...	...	...	...	8	7	...	...	...	...	8	7	15
	„	31 „	1	5	...	...	2	1	14	12	...	...	...	...	16	13	29
	„	31 „	1	(1)2	...	...	2	...	2	2	...	...	...	...	4	2	6
	„	37/39 „	(2)9	2	...	...	15	8	4	2	„	...	...	...	19	10	29
	„	90 Nelson Street,	8	...	...	...	16	4	...	...	...	...	...	...	16	4	20
	„	76 Centre Street,	1	3	...	...	2	...	8	5	...	...	...	...	10	5	15
	8th Sept	71 „	(4)10	(1)4	...	...	12	1	6	5	...	...	...	...	18	6	24
	„	81 „	...	(1)7	...	...	...	...	17	2	...	...	...	...	17	2	19
	„	81 „	...	6	1	...	...	...	14	4	2	...	...	...	16	4	20
	„	45 King Street,	1	3	...	...	2	1	7	5	...	...	...	...	9	6	15
	„	63 „	(2)4	(1)2	...	...	3	...	3	...	...	...	...	...	6	...	6
	„	63 „	...	(1)4	...	...	7	6	...	...	...	...	...	...	7	6	13
	„	63 „	4	(3)4	...	...	8	6	2	5	...	...	...	...	10	11	21
	„	63 „	(1)7	1	...	...	11	8	3	...	...	...	...	...	14	8	22
	„	63 „	(2)4	(2)2	...	...	5	1	...	„	...	...	...	...	5	1	6
			(12)57	(17)58	3	...	98	37	95	49	14	2	...	...	207	88	295
X XVI.	25th Sept.	68 St. James' Street,	(18)25	1	...	...	16	5	3	...	...	...	...	19	5	24	
XXX.	1st July	Hardgate Farm (Cottar's House),	...	1	...	...	...	...	2	3	...	...	...	...	2	3	5
	„	Shiels Farm (Ploughman's House),	...	(1)1	...	...	...	...	...	...	...	...	...	...	...	...	...
			...	(1)2	...	...	...	...	2	3	...	...	...	...	2	3	5
XXXV.	1st July	18/20 Shawhill St.,	2	5	...	...	4	1	15	8	...	...	...	...	19	9	28

The small figures in brackets show the number of empty houses of each size at each address at the time of representation.

REPRESENTATIONS, 1913.—SUMMARY OF RESULTS AS AT 30TH JUNE, 1914.

	HOUSES.												POPULATION.																	
	Occupied.						Unoccupied.						Total.				1 Apt.			2 Apts.		3 Apts.		4 Apts.		Total.				
	Apartments.						Apartments.						Apartments.				Ad.		Ch.		Ad.		Ch.		Ad.		Ch.		Total.	
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Total.	
Properties demolished, ...	13	37	56	2	...	33	19	...	70	75	2	...	80	39	187	63	7	1	...	...	274	103	377							
"    closed, ...	50	69	71	5	1	29	31	...	98	102	5	1	139	54	177	101	22	7	6	...	344	162	506							
"    repaired, ...	13	27	49	4	...	5	9	...	32	58	4	...	52	12	127	63	12	2	...	...	191	77	268							
"    appealed and pending,	12	41	38	...	...	17	31	...	58	69	...	...	86	25	122	49	...	...	...	208	74	282								
Closing Order—No result, ...	1	3	2	...	...	1	3	...	4	5	...	...	4	1	7	1	...	...	...	...	11	2	13							
—No Closing Order,	1	1	4	...	...	2	1	...	3	5	...	...	1	...	8	1	...	...	...	...	9	1	10							
	90	178	220	11	1	87	94	...	265	314	11	1	362	131	628	278	41	10	6	...	1037	419	1,456							

The operations under the Housing, Town Planning, &c., Act, 1909, are summarised in the following Table:—

SUMMARY OF REPRESENTATIONS UNDER THE HOUSING, TOWN PLANNING, &c., ACT, 1909.

Year of Representation.	Total Represented.	Demolished.	Closed.	Business.	Repaired.	Closing Order Failed.	Under Appeal.	No Result.
1910,	22*	15	3	1	2	1	...	...
1911,	...	...	...	...	...	...	...	...
1912,	11*	9	1	...	...	1	...	...
1913,	90	13	50	...	13	1	12	1
	123	37	54	1	15	3	12	1

\* For details see Report 1910, page 97; and 1912, page 95.

Of the tenements represented in 1910 and 1912 the following were demolished in 1913:—

Year of Representation.	Ward.	Address.
1910	IXA.	13 Crown Street.
"	"	14 Rose Street.
1912	XX.	174 Centre Street.
"	"	172/174 "
"	"	166/174 "
"	"	82/90 "

13 Crown Street and 14 Rose Street were demolished as the result of Demolition Orders; 166 to 174 Centre Street, after purchase by the Fire Brigade Committee; while 82/90 Centre Street is included in the Kingston area. These results are included in the Summary given above.

In one instance during 1913, in which a Closing Order was not issued, the house was repaired between the date of representation and reporting to the Committee.

In the following Table the information contained in the previous summary is shown in relation to the Wards affected:—

WARD SUMMARY OF RESULTS OF REPRESENTATIONS UNDER THE HOUSING, TOWN PLANNING, &c., ACT, 1909.

WARD.	Total Represented.	Demolished.	Closed.	Business.	Repaired.	Closing Order Failed.	No Closing Order Made.	Appeals.	No Result.
1. Dalmarnock, -	4	1	2	...	1	...	...	...	...
2. Calton, -	15	1	9	1	3	...	...	1	...
3. Mile-end, -	15	7	7	...	1	...	...	...	...
4. Whitevale, -	3	1	2	...	...	...	...	...	...
9. } Blackfriars, - {	4	...	3	...	...	...	...	1	...
9A } Blackfriars, - {	11	3	4	...	1	...	1	2	...
10. Exchange, -	3	2	...	...	...	...	...	...	1
12. Broomielaw, -	6	...	6	...	...	...	...	...	...
13. Anderston, -	5	...	5	...	...	...	...	...	...
14. Sandyford, -	6	6	...	...	...	...	...	...	...
16. Cowcaddens, -	9	2	1	...	1	1	...	4	...
18. Hutchesontown, -	5	...	5	...	...	...	...	...	...
19. Gorbals, -	4	1	...	...	...	...	...	3	...
20. Kingston, -	27	4	13	...	8	1	...	1	...
21. Govanhill, -	2	2	...	...	...	...	...	...	...
26. Kinning Park, -	1	1	...	...	...	...	...	...	...
30. Fairfield, -	2	...	2	...	...	...	...	...	...
35. Pollokshaws, -	1	...	1	...	...	...	...	...	...
	123	31	60	1	15	2	1	12	1



In addition to action taken under the Housing Acts, the Corporation by purchase acquired the following properties, which are now demolished:—

AREA.	HOUSES.				POPULATION.										
	Apartments.				1 Apt.		2 Apts.		3 Apts.		4 Apts.		TOTAL.		
	1	2	3	4	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Ad.	Ch.	Total.
<b>KINGSTON WARD—</b>															
43A Dale Street (left land), -	1	2	<sup>(1)</sup> 2	...	1	1	10	3	3	5	...	...	14	9	23
43A „ „ (right land), -	<sup>(1)</sup> 5	2	...	...	8	2	6	1	...	...	...	...	14	3	17
47 „ „ (left land), -	5	3	...	...	7	3	10	3	...	...	...	...	17	6	23
47 „ „ (right land), -	...	2	...	...	...	...	6	4	...	...	...	...	6	4	10
49/51 „ „ - - -	2	<sup>(1)</sup> 4	...	...	4	...	8	7	...	...	...	...	12	7	19
<sup>(1)</sup> 82/86 Centre Street, - -	3	<sup>(2)</sup> 4	...	...	5	3	5	2	...	...	...	...	10	5	15
	16	17	2	...	25	9	45	20	3	5	...	...	73	34	107
<b>COWCADDENS WARD—</b>															
<sup>(2)</sup> 160 Cowcaddens (1st back land),	1	<sup>(7)</sup> 12	...	...	2	1	17	7	...	...	...	...	19	8	27†
160 „ (2nd back land),	<sup>(1)</sup> 4	<sup>(9)</sup> 14	...	...	6	1	14	5	...	...	...	...	20	6	26†
160 „ (front back land),	1	<sup>(8)</sup> 14	1	...	2	...	20	3	5	4	...	...	27	7	34†
9 William Street, - - -	...	<sup>(6)</sup> 16	...	...	...	...	19	16	...	...	...	...	19	16	35
15 „ „ - - -	...	<sup>(9)</sup> 16	...	...	...	...	21	12	...	...	...	...	21	12	33
	6	72	1	...	10	2	91	43	5	4	...	...	106	49	155

(<sup>1</sup>) Represented April, 1912. (<sup>2</sup>) Represented November, 1913. Small figures in brackets indicate empty houses. † Demolished.

*Displacement of Population.*—In every instance an effort has been made to trace the occupants of the houses in which action was taken, for the purpose of ascertaining whether they migrated to houses of larger size, and whether the rental of the new house was greater or less than that of the old one. This information is summarized in the following Table:—

HOUSING, TOWN PLANNING, &c., ACT, 1909.

SUMMARY OF RESULTS OF DISPLACEMENTS FROM PROPERTIES REPRESENTED DURING 1913.

From Houses of	Number of Families.	To Houses of												To Houses Combined with Shops.	To Lodgings or with Friends.	To Model Lodging-Houses.	To Farmed-out Houses.	Left Glasgow.	Not Traced.
		1 Apartment.			2 Apartments.			3 Apartments.			4 Apartments.								
		Rent.			Rent.			Rent.			Rent.								
		Inc.	Dec.	Same.	Inc.	Dec.	Same.	Inc.	Dec.	Same.	Inc.	Dec.	Same.						
1 Apartment,	-	-	116	37	8	5	26	...	...	1	...	...	...	5	4	...	1	29	
2 Apartments,	-	-	134	10	13	...	57	16	13	2	...	...	...	4	2	...	1	12	
3    "	-	-	8	...	...	...	2	1	...	2	...	...	...	1	...	...	...	1	
4    "	-	-	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
			47	21	5	86	17	13	5	...	...	...	1	...	...	...	...	...	
			73			116			5			1						...	...
1 Apartment and Shop	-	-	5	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	
2 Apartments	-	-	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3    "	-	-	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	
			73			117			6			1			6	10	6	2	42

As was our experience in former years, it was found that occupants of farmed-out houses usually remove to other farmed-out houses, and this was the case in 68 instances where they could be traced. The Table, however, shows that the number of families of the displaced subsequently occupying one-apartment houses is lower than was the case before action was taken, but no comparison can be made with houses of larger size, owing to the numbers removing from houses combined with shops to lodgings, model lodging-houses, &c., and a number who were not traced. Of those who could not be traced, over 70 per cent. removed to houses at increased rents, while less than 20 per cent. removed to houses with smaller rents. This is shown in the following summary, together with the average rental of the original house, as against that of the new house:—

Increased rent,	...	...	...	139	71 per cent.
Decreased „	...	...	...	38	19 „
Same „	...	...	...	18	9 „
Total,				<u>195</u>	

Average rent per month:—

	Original House.			New House.	
1 Apartment. ... ..	...	...	8s. 9d.	...	10s. 4d.
2 Apartments, ... ..	...	...	12s. 1d.	...	13s. 8d.
3 „ ... ..	...	...	14s. 3d.	...	20s. 3d.

#### HOUSING, TOWN PLANNING, &c., ACT, 1909 (SECTION 35).

Two applications for certificates under this Section were made and granted during the year, the houses being in a satisfactory condition. The certificates enable claims to be made for exemption from inhabited house duty.

#### FARMED-OUT HOUSES.

Appendix Table XXXIV. shows the number of farmed-out houses in the City, and the number of persons occupying them, as ascertained by special census. The total number of such houses was 1,434, of which 981 were of one apartment and 453 of two apartments.

The population inhabiting these houses numbered 3,837, of whom 1,779 adults and 508 children were found in one-apartment houses and 1,174 adults and 376 children in houses of two apartments.

#### HOUSES LET IN LODGINGS.

Closely associated with the farmed-out houses are those let in lodgings, the distinction between them being to a large extent a technical one. An enumeration of the number of persons living in houses let in lodgings was also taken, when 237 houses were found occupied by 691 families, consisting of 1,712 persons. The Ward distribution of the houses let in lodgings is shown in Appendix Table XXXV.



## SECTION V.

## OFFENSIVE TRADES.

During the year one application under Section 32 of the Public Health (Scotland) Act, 1897, was made to the Local Authority.

*Application to erect Gut-Scraping Works at 64 Barrack Street.*—The British Products Company made application to the Local Authority for permission to begin a new gut-scraping business at 64 Barrack Street. The applicants, however, did not comply with the regulations, in so far that no plans were submitted, and did not proceed with their application when they were informed that the site was unsuitable, and that a previous request to utilise the same site for similar purposes had been refused.

## SECTION VI.

SPECIFIC ACCOUNT OF THE ADMINISTRATION OF THE FACTORY AND WORKSHOP ACT, 1901, IN WORKSHOPS AND WORKPLACES, IN TERMS OF SECTION 132 OF THAT ACT, TOGETHER WITH A TABULAR STATEMENT IN THE FORM ISSUED BY THE HOME OFFICE.

## REGISTER OF WORKSHOPS, &amp;c.

A statement of the number of laundries, bakehouses, restaurant kitchens, other food places, and all other workshops, as well as the total number of workshops in each Ward of the City, is contained in Appendix Table XXXVI. The total number of the registered workshops in the City is 6,638, as against 6,565 last year.

34,550 inspections were made to these premises, and 1,667 notices were issued.

Table No. 1 of the Home Office List, which forms Appendix Table XXXVII. of the present report, requires that the number of inspections of such factories and factory laundries as are, by Section 103 of the Factory Act, placed under the jurisdiction of the Local Authority for sanitary purposes, and also of workplaces as distinct from workshops, should be stated, but the total visits are here included under workshops. In general the visits made to factories under the Public Health Act are for the purpose of discovering structural defects in connection with water-closets in the form of choked drains, &c.

## SANITARY CONDITION OF WORKSHOPS.

*Want of Cleanliness.*—Speaking generally, it may be said that the condition in respect of cleanliness in the majority of workshops is satisfactory. In the 633 instances noted in the Table in which it was defective the remedy largely consisted of limewashing.

*Lighting and Ventilation.*—In 44 cases this was defective. A variety of industries were involved, the main defects being fixed roof-lights or fixed windows.

*Overcrowding.*—The overcrowding here noted occurred during the day only. There is no record of any overcrowding during periods of overtime work in the evenings, as knowledge when overtime is worked is not usually within the command of the Department.

*Want of Drainage of Floors.*—These defects are now chiefly found in laundries which are conducted in premises originally intended for shops. The number of these—715—is included, along with other defects, such as choked closets and requests to limewash, in the total given, as representing both in the Table.

*Sanitary Accommodation.*—Here, again, the several items of the Table—“insufficient,” “unsuitable,” and “not separate”—are grouped together under the 125 instances found.

The several items of this group cannot be separated, but in general it is the case that few places now have insufficient closet accommodation, save where a new business has been begun. A similar observation applies to the provision for the separate sexes.

The numbers here dealt with as “defects” or “unsuitable” usually arise from either misuse, carelessness, or tear and wear.

#### HOME WORK.

To outworkers’ premises, 2,365 visits were made during the year, as compared with 2,643 last year. 1,664 of these visits were to homeworkers’ premises, and 701 to contractors’.

In conformity with the instructions regarding the allocation<sup>o</sup> under “Nature of Works” of the lists received from employers who give out work of more than one class, three firms, who sent in lists twice in the year, and three firms, who sent in a list only once, have been included in columns 2 and 5 respectively under the principal class, namely, “wearing apparel”; while the outworkers have been assigned to their respective classes in columns 3, 4, 6, and 7.

#### BAKEHOUSES.

During the year 60 air samples were obtained from 53 overground bakehouses. In 10 bakehouses the impurity was below 6 parts CO<sup>2</sup> in 10,000 parts of air, and in—

32 bakehouses the impurity was over 6 and under 10.					
11	“	“	10	“	11.
6	“	“	11	“	16.

Five of these latter results from Wards in the added area were obtained either when the ovens were being drawn, or when the ventilation was somewhat obstructed, owing to the dough undergoing the process of fermentation. A further sample from each was subsequently taken, resulting in an average of 8·5 CO<sup>2</sup> in 10,000. The remaining sample of this latter group, which had 14 parts CO<sup>2</sup> in 10,000, improved the ventilation with good results.

In one instance where 16·1 parts CO<sup>2</sup> were found, improved ventilation was obtained after alterations. The average over the 60 samples is 9·1, which is lower than any previous year since 1905, with the exception of 1907, when the average was the same.

Average 1905,	...	...	...	...	11·5
“ 1906,	...	...	...	...	9·5
“ 1907,	...	...	...	...	9·1
“ 1908,	...	...	...	...	10·5
“ 1909,	...	...	...	...	9·5
“ 1911,	...	...	...	...	12·0
“ 1912,	...	...	...	...	9·8

#### AIR SAMPLES FROM UNDERGROUND BAKEHOUSES.

Twenty-six air samples were taken from 24 underground bakehouses, in order to test the air purity in combination with the use of the electric ventilating fans, where such appliances are fixed.

Twenty of these are mechanically ventilated by fans. In 15 the fans were found in operation; in 2 the fans were out of order; and 3 had ceased working. The 4 remaining premises tested are in Wards 26, 27, 31, and 35, where no mechanical ventilation has been installed.

These showed the following results:—

13·4, 10·5, 15·8, and 16·0 parts CO<sup>2</sup> per 10,000. Further samples taken from the two latter showed improvement with 11·8 and 7·3 parts CO<sup>2</sup> respectively. The average for the 26 samples is 11·1 CO<sup>2</sup>, the details of which are shown in the following summary:—

## SUMMARY OF RESULTS.

Amount of CO <sup>2</sup> per 10,000 Vols. of Air.							Number of Bakehouses.
Over 4 and under 5,	...	...	...	...	...	...	1
„ 6,	...	...	...	...	...	...	1
„ 7,	...	...	...	...	...	...	2
„ 8,	...	...	...	...	...	...	4
„ 9,	...	...	...	...	...	...	4
„ 11,	...	...	...	...	...	...	3
„ 12,	...	...	...	...	...	...	4
„ 13,	...	...	...	...	...	...	1
„ 14,	...	...	...	...	...	...	1
„ 15,	...	...	...	...	...	...	1
„ 16,	...	...	...	...	...	...	2
„ 17,	...	...	...	...	...	...	1
„ 18,	...	..	...	...	...	...	1
							<hr/> 26 <hr/>

## (1) UNDERGROUND BAKEHOUSES.

Fifty-three underground bakehouses remain in occupation in Glasgow, there being 12 others not in use. Of these, 52 are certified as conforming to the requirements for underground bakehouses.

During the year 162 inspections were made of the bakehouses on the register, and on these occasions the fans were invariably found in use, the result, no doubt, of the action taken in previous years in checking the use of the fans by the condition of the air.

Table XLII. contains a statement of the number of each class in the several Wards, and the number of visits paid thereto during the year.

Structural repairs were effected in one bakehouse to improve the floor surface.

## (2) BAKEHOUSES NOT UNDERGROUND.

It will be seen from Appendix XLIII. that the number of bakehouses not underground on the register at the close of the year was 189, as compared with 195 at the close of 1912. In addition, there are shown in Table XXXVI. certain premises which are provided with hot-plates for baking purposes. Under this classification, should a dairy carry on its baking in an underground apartment, the question will require to be reconsidered as to whether it should not be added to the list of bakehouses, as much more stringent regulation is then possible.

Structural repairs were made in 11 bakehouses to effect improvement in ventilation, floor surfaces, &c.

## REGISTRATION OF HAIRDRESSERS.

Appendix Table XLIV. shows the number and Ward distribution of registered hairdressers, and the changes which have taken place during the year, as well as the number of visits of inspection to these premises.

A. K. CHALMERS,  
*Medical Officer of Health.*

Sanitary Chambers,  
Glasgow, 15th September, 1913.





## APPENDIX I.

TABLE I.

GLASGOW, 1913.—INHABITED HOUSES AND POPULATION FOR EACH MUNICIPAL WARD.

MUNICIPAL WARDS.	INHABITED HOUSES.				POPULATION.			
	1912.	1913.	Decrease.	Increase.	1912.	1913.	Decrease.	Increase.
1. Dalmarnock, -	10,928	11,042	...	114	51,252	51,709	...	457
2. Calton, -	7,590	7,582	8	...	34,612	34,527	85	...
3. Mile-end, -	9,810	9,934	...	124	46,034	46,546	...	512
4. Whitevale, -	6,725	6,776	...	51	31,523	31,712	...	189
5. Dennistoun, -	8,602	8,846	...	244	37,436	38,440	...	1,004
6. Springburn, -	9,443	9,561	...	118	44,680	45,168	...	488
7. Cowlands, -	6,342	6,404	...	62	29,951	30,194	...	243
8. Townhead, -	7,472	7,492	...	20	35,327	35,371	...	44
9. Blackfriars, -	4,018	4,013	5	...	19,407	19,355	52	...
10. Exchange, -	293	277	16	...	1,526	1,442	84	...
11. Blythswood, -	441	440	1	...	2,374	2,363	11	...
12. Broomielaw, -	1,182	1,163	19	...	6,125	6,021	104	...
13. Anderston, -	5,996	6,070	...	74	27,751	28,049	...	298
14. Sandyford, -	4,959	4,944	15	...	23,374	23,267	107	...
15. Park, -	4,746	4,736	10	...	22,286	22,203	83	...
16. Cowcaddens, -	7,201	7,142	59	...	33,590	33,263	327	...
17. Woodside, -	9,166	9,224	...	58	41,009	41,207	...	198
18. Hutchesontown, -	8,505	8,549	...	44	39,031	39,173	...	142
19. Gorbals, -	6,770	6,884	...	114	32,609	33,105	...	496
20. Kingston, -	6,756	6,810	...	54	32,072	32,278	...	206
21. Govanhill, -	7,928	8,201	...	273	35,966	37,149	...	1,183
22. Langside, -	9,837	10,163	...	326	40,527	41,809	...	1,282
23. Pollokshields, -	3,750	3,874	...	124	17,624	18,176	...	552
24. Kelvinside, -	4,795	4,993	...	198	21,205	22,047	...	842
25. Maryhill, -	8,652	8,842	...	190	39,672	40,481	...	809
26. Kinning Park, -	2,634	2,650	...	16	12,710	12,767	...	57
Institutions, -	...	...	...	...	23,815	23,721	94	...
Shipping, -	...	...	...	...	1,064	1,064	...	...
Old City, -	164,541	166,612	...	2,071	784,552	792,607	...	8,055
27. Plantation, -	6,049	6,257	...	208	27,593	28,723	...	1,130
28. Ibrox, -	4,074	4,269	...	195	19,340	20,485	...	1,145
29. Govan (Central), -	4,411	4,599	...	188	21,768	22,840	...	1,072
30. Fairfield, -	4,358	4,541	...	183	20,216	21,201	...	985
31. Partick (East), -	4,810	4,871	...	61	22,171	22,595	...	424
32. „ (Central), -	5,988	6,174	...	186	26,653	27,655	...	1,002
33. „ (West), -	4,337	4,572	...	235	20,386	21,627	...	1,241
34. Jordanhill, -	2,976	2,981	...	5	14,190	14,215	...	25
35. Pollokshaws, -	3,015	3,044	...	29	13,406	13,621	...	215
36. Cathcart, -	3,179	3,309	...	130	13,957	14,620	...	663
37. Shettleston and Tollcross, -	5,518	5,723	...	205	26,102	27,244	...	1,142
Institutions, -	...	...	...	...	4,188	4,152	36	...
Shipping, -	...	...	...	...	643	643	...	...
Total, Annexed Areas,	48,716	50,340	...	1,625	230,613	239,621	...	9,008
„ Old Glasgow, -	164,541	166,612	...	2,071	784,552	792,607	...	8,055
„ Greater Glasgow,	213,256	216,952	...	3,696	1,015,165	1,032,228	...	17,063

TABLE II.—UNOCCUPIED HOUSES.

Number of UNOCCUPIED HOUSES in the several MUNICIPAL WARDS,  
classified according to size, as at 1st June, 1913.

MUNICIPAL WARDS.	1 Apart- ment.	2 Apart- ments.	3 Apart- ments.	4 Apart- ments.	5 Apart- ments and up.	TOTAL.
1. Dalrnarnock, ...	373	849	64	14	1	1,301
2. Calton, ...	252	487	122	16	10	887
3. Mile-end, ...	290	637	84	4	1	1,016
4. Whitevale, ...	129	449	95	17	6	696
5. Dennistoun, ...	38	220	64	38	18	378
6. Springburn, ...	518	704	70	3	1	1,296
7. Cowlares, ...	178	549	43	3	2	775
8. Townhead, ...	152	627	154	55	20	1,008
9. Blackfriars, ...	103	281	106	43	7	540
10. Exchange, ...	6	16	22	5	3	52
11. Blythswood, ...	1	6	3	15	13	38
12. Broomielaw, ...	17	74	77	32	4	204
13. Anderston, ...	52	216	117	32	43	460
14. Sandyford, ...	62	114	140	38	72	426
15. Park, ...	13	56	71	81	163	384
16. Cowcaddens, ...	485	640	204	55	25	1,409
17. Woodside, ...	221	500	170	42	46	979
18. Hutchesontown, ...	201	661	66	9	...	937
19. Gorbals, ...	117	243	250	88	51	749
20. Kingston, ...	160	303	208	75	9	755
21. Govanhill, ...	74	265	109	47	10	505
22. Langside, ...	4	6	87	99	112	308
23. Pollokshields, ...	7	11	5	34	103	160
24. Kelvinside, ...	2	3	8	24	129	166
25. Maryhill, ...	237	696	91	16	82	1,122
26. Kinning Park, ...	66	117	35	3	2	223
Old City, ...	3,758	8,730	2,465	888	933	16,774
27. Plantation, ...	78	277	57	19	27	458
28. Ibrox, ...	53	223	35	8	5	324
29. Govan (Central), ...	26	136	29	...	...	191
30. Fairfield, ...	49	71	11	1	1	133
31. Partick (East), ...	46	72	71	22	39	250
32. „ (Central), ...	76	121	21	6	35	259
33. „ (West), ...	8	25	7	...	22	62
34. Jordanhill, ...	10	30	2	1	9	52
35. Pollokshaws, ...	25	20	11	1	4	61
36. Cathcart, ...	1	10	18	6	17	52
37. Shettleston & Tollcross	39	47	4	2	2	94
Added Area, ...	411	1,032	266	66	161	1,936
Old City, ...	3,758	8,730	2,465	888	933	16,774
Greater Glasgow, ...	4,169	9,762	2,731	954	1,094	18,710

TABLE III.—COMPARATIVE TABLE OF LININGS GRANTED BY DEAN OF GUILD COURT FOR THE YEARS ENDING 31ST AUGUST, 1912 AND 1913.

DISTRICTS.	NO. OF APARTMENTS.												TOTAL.
	1.		2.		3.		4.		5.		6.		
	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.	1912.	1913.	
Central, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Western, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eastern, ...	...	...	74	...	6	...	2	...	...	...	...	...	82
Southern, ...	3	...	18	39	...	...	...	...	...	...	...	...	21
Northern, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Rollox, ...	3	...	10	...	...	2	...	2	2	6	...	1	15
Queen's Park, ...	...	...	18	10	33	91	3	...	4	18	2	4	60
Maryhill, ...	...	...	...	...	14	38	8	34	...	4	...	...	22
Old City,	6	...	120	49	53	131	13	36	6	28	2	5	200
Eastern, ...	...	...	...	...	...	...	...	...	...	...	...	1	...
Queen's Park,	...	...	...	...	...	...	...	...	...	39	...	...	38
Govan, ...	...	...	...	...	...	4	...	...	...	...	...	1	...
Partick, ...	...	1	...	48	...	60	...	35	...	...	...	23	167
Added Area,	...	1	...	48	...	64	...	35	...	39	...	25	211
Old City, ...	...	...	...	49	...	131	...	36	...	28	...	5	248
Greater Glasgow	...	1	...	97	...	195	...	71	...	67	...	30	467



MUNICIPAL WARDS.			POPULATION.				Persons per Acre (including Institutions and Shipping).	
Acreage 1913.	Inhabited Houses, 1913.		Census 1911.	Estimated middle of 1913.	Increase.	Decrease.	Per Cent. Increase.	Per Cent. Decrease.
...	...	1. Dalnarnock, ...	51,161	51,709	548	...	1.1	...
...	...	2. Calton, ...	35,140	34,527	...	613	...	1.7
...	...	3. Mile-end, ...	45,652	46,546	894	...	2.0	...
...	...	4. Whitevale, ...	31,931	31,712	...	219	...	0.7
...	...	5. Dennistoun, ...	36,214	38,440	2,226	...	6.1	...
...	...	6. Springburn, ...	44,813	45,168	355	...	0.8	...
...	...	7. Cowdairs, ...	29,444	30,194	750	...	2.5	...
...	...	8. Townhead, ...	36,469	35,371	...	1,098	...	3.0
...	...	9. Blackfriars, ...	19,953	19,355	...	598	...	3.0
...	...	10. Exchange, ...	1,672	1,442	...	230	...	13.7
...	...	11. Blythswood, ...	2,795	2,363	...	432	...	15.5
...	...	12. Broomielaw, ...	6,752	6,021	...	731	...	10.8
...	...	13. Anderston, ...	27,723	28,049	326	...	1.2	...
...	...	14. Sandyford, ...	23,596	23,267	...	329	...	1.4
...	...	15. Park, ...	22,307	22,203	...	104	...	0.5
...	...	16. Cowcaddens, ...	33,898	33,263	...	635	...	1.9
...	...	17. Woodside, ...	41,198	41,207	9	...	...	...
...	...	18. Hutchesontown, ...	39,931	39,173	...	758	...	1.9
...	...	19. Gorbals, ...	33,192	33,105	...	87	...	0.3
...	...	20. Kingston, ...	32,676	32,278	...	398	...	1.2
...	...	21. Govanhill, ...	35,082	37,149	2,067	...	5.9	...
...	...	22. Langside, ...	38,888	41,809	2,921	...	7.5	...
...	...	23. Pollokshields, ...	17,124	18,176	1,052	...	6.1	...
...	...	24. Kelvinside, ...	19,803	22,047	2,244	...	11.3	...
...	...	25. Maryhill, ...	39,359	40,481	1,122	...	2.9	...
...	...	26. Kinning Park, ...	12,841	12,767	...	74	...	0.6
...	...	Institutions and Shipping, ...	24,882	24,785	...	97	...	0.4
...	...	Old City, ...	784,496	792,607	8,111	...	1.0	...
...	...	27. Plantation, ...	27,708	28,723	1,015	...	3.7	...
...	...	28. Ibrox, ...	19,321	20,485	1,164	...	6.0	...
...	...	29. Govan (Central), ...	21,774	22,840	1,066	...	4.9	...
...	...	30. Fairfield, ...	19,388	21,201	1,813	...	9.3	...
...	...	31. Partick (East), ...	21,510	22,595	1,085	...	5.0	...
...	...	32. " (Central), ...	25,948	27,655	1,707	...	6.6	...
...	...	33. " (West), ...	18,810	21,627	2,817	...	15.0	...
...	...	34. Jordanhill, ...	13,211	14,215	1,004	...	7.6	...
...	...	35. Pollokshaws, ...	12,967	13,621	654	...	5.0	...
...	...	36. Cathcart, ...	12,766	14,620	1,854	...	14.5	...
...	...	37. Shettleston and Tollcross, ...	25,490	27,244	1,754	...	6.9	...
...	...	Institutions and Shipping, ...	5,098	4,795	...	303	...	5.9
...	...	Added Area, ...	223,991	239,621	15,630	...	7.0	...
...	...	Old Glasgow, ...	784,496	792,607	8,111	...	1.0	...
...	...	Greater Glasgow, ...	1,008,487	1,032,228	23,741	...	2.4	...

TABLE V.  
ABSTRACT of METEOROLOGICAL OBSERVATIONS taken at GLASGOW OBSERVATORY  
during 1913.

MONTHS.	TEMPERATURE.				RAINFALL.		
	Highest Temperature in Shade.	Lowest Temperature in Shade.	Mean Temperature for Month.	Departure from Average of 45 Years.	No. of Days it fell.	Amount Collected, in inches.	Departure from average of 45 Years.
January, ...	51°·9	24°·0	38°·4	- 0°·3	18	3·44	- 0·23
February, ...	50°·0	31°·1	40°·6	+ 1°·6	14	2·92	- 0·11
March, ...	54°·0	26°·3	40°·9	+ 0°·5	25	3·97	+ 1·35
April, ...	61°·1	32°·2	44°·9	+ 0°·3	18	2·84	+ 0·77
May, ...	70°·8	38°·2	49°·6	+ 0°·1	20	3·37	+ 0·87
June, ...	72°·0	44°·2	54°·9	- 0°·2	19	3·00	+ 0·28
July, ...	73°·7	43°·6	57°·5	+ 0°·0	8	1·29	- 1·80
August, ...	71°·8	44°·2	57°·2	+ 0°·6	10	1·05	- 2·87
September, ...	67°·9	39°·6	53°·8	+ 0°·8	10	2·28	- 1·14
October, ...	61°·9	34°·4	50°·2	+ 3°·1	19	1·71	- 2·02
November, ...	55°·3	33°·1	45°·8	+ 3°·7	22	5·29	+ 1·66
December, ...	54°·7	24°·3	40°·9	+ 1°·8	18	3·41	- 0·65
Total, ...	...	...	...	...	201	34·57	- 3·89

TABLE VI.  
GLASGOW, 1913.—BIRTHS and BIRTH-RATES *per Million* in each WARD, exclusive  
of Institutions and Harbour, with corresponding Rates for 1903-12.

MUNICIPAL WARDS.	Rate per Million.				1913.	
	1903-5.	1906-10.	1911.	1912.	Births.	Birth Rate per Million.
1. Dalmarnock, - -	40,768	38,120	34,733	35,547	1,851	35,796
2. Calton, - - -	33,362	32,328	30,336	29,447	1,038	30,063
3. Mile-end, - - -	40,881	39,644	36,384	36,378	1,741	37,404
4. Whitevale, - -	32,866	32,530	29,595	31,153	1,012	31,912
5. Dennistoun, - -	29,426	26,143	25,211	23,094	928	24,142
6. Springburn, - -	41,301	38,627	35,994	32,830	1,637	36,242
7. Cowlairs, - - -	36,291	32,810	30,634	31,415	915	30,304
8. Townhead, - - -	31,861	30,786	25,583	26,178	931	26,321
9. Blackfriars, - -	32,483	31,453	28,066	29,509	634	32,756
10. Exchange, - - -	19,838	19,426	14,952	10,951	28	19,417
11. Blythswood, - -	10,182	10,764	8,945	8,307	25	10,580
12. Broomielaw, - -	30,697	30,263	30,361	22,719	181	30,061
13. Anderston, - - -	33,421	32,244	28,893	29,951	890	31,730
14. Sandyford, - - -	24,244	22,872	21,571	21,806	516	22,177
15. Park, - - - -	12,064	10,388	8,921	9,185	199	8,963
16. Cowcaddens, - -	33,872	31,060	30,946	29,129	1,014	30,484
17. Woodside, - - -	32,065	28,105	26,215	25,741	1,038	25,190
18. Hutchesontown, -	39,273	37,783	35,887	35,057	1,300	33,184
19. Gorbals, - - -	28,688	27,507	27,597	24,989	846	25,555
20. Kingston, - - -	30,285	28,767	26,533	26,904	834	25,838
21. Govanhill, - - -	36,328	32,760	32,467	31,085	1,116	30,041
22. Langside, - - -	20,538	20,305	20,392	19,192	772	18,465
23. Pollokshields, -	10,531	8,692	10,220	8,568	196	10,783
24. Kelvinside, - - -	12,074	11,455	14,038	11,675	283	12,836
25. Maryhill, - - -	40,500	34,851	30,895	31,454	1,270	31,373
26. Kinning Park, -	...	35,428	33,331	36,585	436	34,151
— Institutions and Harbour, - - -	...	...	...	...	59	...
Old City, - - -	31,428	29,208	27,513	27,802	21,690	27,365
27. Plantation, - -	...	...	...	...	820	28,549
28. Ibrox, - - - -	...	...	...	...	663	32,508
29. Govan (Central), -	...	...	...	...	829	36,300
30. Fairfield, - - -	...	...	...	...	723	34,102
31. Partick (East), -	...	...	...	...	496	21,952
32. „ (Central), - -	...	...	...	...	902	32,616
33. „ (West), - - -	...	...	...	...	584	27,003
34. Jordanhill, - - -	...	...	...	...	347	24,257
35. Pollokshaws, - -	...	...	...	...	390	28,632
36. Cathcart, - - -	...	...	...	...	332	22,709
37. Shettleston & Tollcross	...	...	...	...	912	33,475
— Institutions and Harbour, - - -	...	...	...	...	...	...
Added Area, - - -	...	...	...	...	6,998	29,204
Old Glasgow, - - -	...	...	...	...	21,690	27,365
Greater Glasgow, -	...	...	...	...	28,688	27,792

TABLE VII.

GLASGOW, 1913.—ALL CAUSES.—DEATHS and DEATH-RATES *per Million* in each MUNICIPAL WARD, with corresponding rates for 1903-12.

MUNICIPAL WARDS.	Rate per Million.				1913.	
	1903-5.	1906-10.	1911.	1912.	Deaths.	Rate per Million.
1. Dalmarnock, - -	19,754	20,010	18,588	15,882	930	17,985
2. Calton, - - -	22,458	21,990	19,351	21,120	786	22,764
3. Mile-end, - - -	21,753	20,229	19,035	19,312	892	19,164
4. Whitevale, - - -	19,633	18,701	17,381	18,431	573	18,069
5. Dennistoun, - -	12,852	12,231	11,266	11,139	398	10,354
6. Springburn, - -	18,332	17,170	15,821	16,450	682	15,099
7. Cowlairs, - - -	15,879	14,926	14,944	12,988	462	15,301
8. Townhead, - - -	18,486	18,089	16,508	17,211	626	17,698
9. Blackfriars, - -	21,698	21,318	18,393	22,105	388	20,046
10. Exchange, - - -	18,072	16,689	16,746	11,796	33	22,885
11. Blythswood, - -	13,895	11,041	12,880	11,373	36	15,234
12. Broomielaw, - -	23,370	23,636	22,660	22,367	143	23,750
13. Anderston, - - -	18,725	18,805	17,783	16,756	554	19,751
14. Sandyford, - - -	16,579	17,843	15,426	16,386	434	18,653
15. Park, - - - - -	10,732	10,834	11,387	11,711	262	11,800
16. Cowcaddens, - -	23,372	21,583	19,588	18,994	726	21,826
17. Woodside, - - -	15,129	15,298	14,491	14,411	704	17,084
18. Hutchesontown, -	20,688	19,463	18,056	16,730	694	17,715
19. Gorbals, - - - -	17,994	17,472	15,636	14,843	541	16,342
20. Kingston, - - -	18,017	18,077	18,331	16,494	590	18,279
21. Govanhill, - - -	14,570	14,868	13,340	13,874	491	13,217
22. Langside, - - -	9,555	9,380	9,309	10,191	390	9,328
23. Pollokshields, -	8,991	8,915	10,453	10,157	208	11,442
24. Kelvinside, - - -	7,406	7,347	8,888	7,970	188	8,527
25. Maryhill, - - -	15,063	14,142	12,754	14,065	547	13,513
26. Kinning Park, -	...	18,950	16,821	16,522	241	18,877
— Institutions and Harbour, - - -	...	...	...	...	722	...
Old City, - - - -	18,292	17,508	16,441	16,264	13,241	16,706
27. Plantation, - -	...	...	...	...	508	17,686
28. Ibrox, - - - - -	...	...	...	...	348	17,063
29. Govan (Central), -	...	...	...	...	454	19,877
30. Fairfield, - - -	...	...	...	...	267	12,594
31. Partick (East), -	...	...	...	...	361	15,977
32. „ (Central), - -	...	...	...	...	392	14,174
33. „ (West), - - -	...	...	...	...	295	13,640
34. Jordanhill, - - -	...	...	...	...	160	11,185
35. Pollokshaws, - -	...	...	...	...	201	14,757
36. Cathcart, - - -	...	...	...	...	149	10,191
37. Shettleston & Tollcross	...	...	...	...	421	15,453
— Institutions & Harbour	...	...	...	...	152	...
Added Area, - - -	...	...	...	...	3,708	15,474
Greater Glasgow, -	...	...	...	...	16,949	16,420
+ Inward Transfer Deaths,	...	..	...	...	17,693	17,141



TABLE VIII.

GLASGOW, 1913.—DEATHS OF PERSONS NOT BELONGING TO GLASGOW OCCURRING IN PUBLIC INSTITUTIONS AND ELSEWHERE IN GLASGOW, TRANSFERRED TO OTHER LOCAL AUTHORITIES, TABULATED ACCORDING TO DISEASE AND AGE.

Cause of Death.	AGES.													TOTAL.
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	
1. Enteric Fever, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Typhus Fever, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Smallpox, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Measles, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Scarlet Fever, ... ..	...	...	2	...	...	...	...	...	...	...	...	...	...	2
6. Whooping-cough, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7. Diphtheria and M. Croup, ... ..	...	1	1	1	...	...	...	...	...	...	...	...	...	3
8. Croup, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Influenza, ... ..	...	...	...	...	...	...	...	...	...	1	1	2	...	4
10. Erysipelas, ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	1
11. Septicæmia, ... ..	1	...	...	...	1	...	...	2	...	1	...	...	...	5
11A Other Septic Diseases, ... ..	...	...	...	...	...	...	...	...	1	1	...	...	1	3
12. Pulmonary Tuberculosis, ... ..	...	1	...	...	1	...	2	5	6	2	...	1	...	18
13. Tuberculous Meningitis, ... ..	...	2	3	2	1	2	...	1	...	...	...	...	...	11
14. Abdominal Tuberculosis, ... ..	2	1	...	1	5	1	...	2	2	1	1	...	...	16
15. Other Tuberculous Diseases, ... ..	2	4	4	...	...	2	1	1	...	...	2	...	...	16
16. Cancer (Malignant Disease), ... ..	...	...	...	1	...	...	1	3	12	32	34	25	4	112
17. Rheumatic Fever, ... ..	...	...	...	...	...	1	...	1	...	...	...	...	...	2
18. Alcoholism, ... ..	...	...	...	...	...	...	...	...	2	...	...	...	...	2
19. Cerebro-spinal Fever, ... ..	...	...	1	...	...	...	1	...	...	...	...	...	...	2
20. Meningitis (not Tuberculous), ... ..	1	...	1	...	...	1	...	...	...	...	...	...	...	3
21. Cerebral Hæmorrhage, ... ..	...	...	...	...	...	...	1	1	2	5	6	9	1	25
22. Other Nervous Diseases, ... ..	2	...	3	...	3	2	4	1	6	2	2	1	...	26
23. Organic Heart Disease, ... ..	...	...	...	1	...	2	...	4	12	6	6	4	3	38
24. Other Circulatory Diseases, ... ..	...	...	...	...	...	1	1	3	1	8	5	8	2	29
25. Bronchitis, ... ..	2	...	...	...	...	...	...	...	...	3	...	...	2	7
26. Pneumonia (all forms), ... ..	1	1	1	1	1	...	4	1	2	7	7	5	2	33
27. Other Respiratory Diseases, ... ..	...	4	1	...	...	1	1	...	2	...	2	...	...	11
28. Diarrhoea and Enteritis, ... ..	2	...	1	...	...	...	...	...	1	4	1	2	...	11
29. Appendicitis and Typhlitis, ... ..	...	...	...	6	16	6	5	3	2	4	5	...	...	47
30. Cirrhosis of the Liver, ... ..	...	...	...	...	...	...	...	1	1	...	1	...	...	3
31. Other Digestive Diseases, ... ..	18	...	1	3	2	4	5	13	26	23	21	9	2	127
32. Nephritis and Bright's Disease, ... ..	...	...	...	...	1	...	3	3	5	3	4	3	1	23
33. Puerperal Fever, ... ..	...	...	...	...	...	...	...	2	2	...	...	...	...	4
34. Other Accidents and Diseases of Pregnancy and Parturition, ... ..	...	...	...	...	...	1	2	5	5	...	...	...	...	13
35. Congenital Debility and Malform- ation, including premature birth	15	1	1	...	...	...	...	...	...	...	...	...	...	17
36. Violence, ... ..	...	...	9	...	5	11	7	24	12	17	8	6	...	99
37. Unknown, ... ..	...	...	...	...	...	...	...	...	1	...	...	...	...	1
38. All other Causes, ... ..	...	5	7	8	4	7	3	14	13	18	20	13	2	114
Total, ... ..	46	20	36	24	40	42	41	91	116	138	126	88	20	828

TABLE IX.

GLASGOW, 1913.—DEATHS OF PERSONS FORMERLY RESIDENT IN GLASGOW OCCURRING IN PUBLIC INSTITUTIONS AND ELSEWHERE BEYOND THE BURGH, TABULATED ACCORDING TO DISEASE AND AGE.

DISEASE.	AGE.													TOTAL.
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	
1. Enteric Fever, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Typhus Fever, ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Smallpox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Measles, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. Scarlet Fever, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6. Whooping-cough, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7. Diphtheria and Mem. Croup,	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8. Croup, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Influenza, ...	...	...	...	...	...	1	...	1	...	1	...	1	...	4
10. Erysipelas, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. Septicaemia, ...	...	...	...	...	...	...	...	1	1	...	...	...	...	2
11A Other Septic Diseases, ...	...	...	...	1	...	...	...	...	...	...	2	...	...	3
12. Pulmonary Tuberculosis, ...	...	...	...	1	2	6	10	25	26	9	9	4	...	92
13. Tuberculous Meningitis, ...	2	...	...	2	...	...	1	...	...	...	...	...	...	5
14. Abdominal Tuberculosis, ...	...	1	...	1	...	1	...	1	2	...	1	...	...	7
15. Other Tuberculous Diseases, ...	1	...	...	1	1	...	...	3	1	...	1	2	...	10
16. Cancer (Malignant Disease), ...	...	...	...	...	...	...	...	2	2	4	5	8	4	25
17. Rheumatic Fever, ...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
18. Alcoholism, ...	...	...	...	...	...	...	...	...	2	1	...	1	...	4
19. Cerebro-Spinal Fever, ...	...	...	...	1	1	...	...	...	...	...	...	...	...	2
20. Meningitis (not Tuberculous),	2	2	1	...	1	...	...	...	1	...	...	...	...	7
21. Cerebral Hæmorrhage (Apoplexy), ...	...	...	...	...	...	...	...	1	5	10	12	12	6	46
22. Other Nervous Diseases, ...	2	...	...	...	1	3	8	21	30	40	21	11	2	139
23. Organic Heart Diseases, ...	...	...	...	...	...	1	3	2	6	12	17	13	5	59
24. Other Circulatory Diseases, ...	...	...	...	...	...	...	...	2	3	4	4	7	2	22
25. Bronchitis, ...	2	...	1	1	...	...	...	...	...	2	2	5	2	15
26. Pneumonia (all forms), ...	5	...	1	1	...	1	2	4	6	2	2	3	1	28
27. Other Respiratory Diseases, ...	...	...	1	1	...	...	...	2	...	6	2	3	...	15
28. Diarrhœa and Enteritis, ...	4	1	...	1	1	1	1	2	3	4	...	1	2	21
29. Appendicitis and Typhlitis, ...	...	...	...	...	...	...	...	1	2	1	...	...	...	4
30. Cirrhosis of the Liver, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
31. Other Digestive Diseases, ...	...	...	...	1	...	...	1	1	1	3	3	6	3	19
32. Nephritis and Bright's Disease, ...	...	...	...	...	...	...	...	...	1	1	1	3	1	7
33. Puerperal Fever, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34. Other Accidents and Diseases of Pregnancy and Parturition,	...	...	...	...	...	...	2	1	1	...	...	...	...	4
35. Congenital Debility and Malformation, including Pre-mature Birth, ...	5	...	1	...	...	...	...	...	...	...	...	...	...	6
36. Violence, ...	...	...	3	2	...	2	9	19	12	13	6	6	1	73
37. Unknown, ...	...	...	...	...	...	...	...	...	1	...	2	...	...	3
38. All other Causes, ...	2	2	2	3	1	1	2	6	5	18	12	31	36	121
Total, ...	25	6	10	17	8	17	39	96	111	131	102	117	65	744

TABLE X.

GLASGOW, 1913.—DEATH-RATES per 1,000, from “All” and “Specified” Causes, with corresponding Rates for 1912.

						1912.		1913.		-	+
I. PRINCIPAL ZYMOTIC DISEASES,	...	...	...	...	...	...	1·883	...	2·484	...	·601
Smallpox,	...	...	...	...	...	...	...	...	...	...	...
Diphtheria,	...	...	...	...	...	·232	...	·181	...	·051	...
Scarlet Fever,	...	...	...	...	...	·093	...	·131	...	...	·038
Typhus Fever,	...	...	...	...	...	·003	...	·006	...	...	·003
Enteric Fever,	...	...	...	...	...	·051	...	·036	...	·015	...
Cerebro-Spinal Fever,	...	...	...	...	...	·027	...	·034	...	...	·007
Measles,	...	...	...	...	...	·664	...	·560	...	·104	...
Whooping-cough,	...	...	...	...	...	·307	...	·729	...	...	·422
Diarrhœa and Enteritis,	...	...	...	...	...	·506	...	·807	...	...	·301
II. SEPTIC DISEASES,	...	...	...	...	...	...	·226	...	·124	·102	...
III. TUBERCULOUS DISEASES,	...	...	...	...	...	...	1·969	...	2·127	...	·158
Phthisis,	...	...	...	...	...	1·318	...	1·412	...	...	·094
Other Tuberculous Diseases,	...	...	...	...	...	·651	...	·715	...	...	·064
IV. CANCER (Malignant Disease),	...	...	...	...	...	...	·932	...	·965	...	·033
V. DISEASES OF NERVOUS SYSTEM,	...	...	...	...	...	...	1·585	...	1·664	...	·077
VI. „ CIRCULATORY SYSTEM,	...	...	...	...	...	...	1·895	...	1·757	·138	...
VII. „ RESPIRATORY „	...	...	...	...	...	...	3·231	...	2·919	·312	...
Pneumonia,	...	...	...	...	...	1·756	...	1·565	...	·191	...
Other Respiratory Diseases,	...	...	...	...	...	1·475	...	1·354	...	·121	...
VIII. OTHER CAUSES,	...	...	...	...	...	...	4·543	...	5·101	...	·558
All Causes,	...	...	...	...	...	...	16·264	...	17·141	...	·877
Birth-rate,	...	...	...	...	...	...	27·802	...	27·792	·010	...
Deaths under 1 year per 1,000 Births,	...	...	...	...	...	...	122	...	128	...	6



TABLE XI.  
GLASGOW, 1913.—DEATHS from DIFFERENT DISEASES at several AGE-PERIODS.

DISEASE.	AGE.													Total.
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75 +	
1. Enteric Fever, ...	...	...	1	1	2	2	3	13	12	1	2	...	...	37
2. Typhus Fever, ...	...	...	...	...	...	...	1	1	2	1	1	...	...	6
3. Smallpox, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Measles, ...	130	266	144	34	2	2	...	...	...	...	...	...	...	578
5. Scarlet Fever, ...	4	18	68	30	7	3	...	4	1	...	...	...	...	135
6. Whooping-cough, ...	320	230	181	20	1	1	...	...	...	...	...	...	...	753
7. Diphtheria and Membranous Croup, ...	29	50	63	35	3	5	1	1	...	...	...	...	...	187
8. Croup, ...	3	1	2	...	...	...	...	...	...	...	...	...	...	6
9. Influenza, ...	3	1	2	...	...	1	1	3	4	21	13	26	13	88
10. Erysipelas, ...	15	2	...	...	...	...	...	5	7	12	8	10	5	64
11. Septicaemia, ...	3	...	...	1	1	3	1	7	3	7	2	2	2	32
11A. Other Septic Diseases, ...	3	2	...	1	1	...	...	1	3	4	6	6	...	27
12. Pulmonary Tuberculosis, ...	7	11	24	27	60	124	141	339	269	211	115	32	5	1,365
13. Tuberculous Meningitis, ...	75	75	66	43	21	8	3	4	4	2	...	1	...	302
14. Abdominal Tuberculosis, ...	41	39	45	34	15	9	4	4	6	4	3	2	...	206
15. Other Tuberculous Diseases, ...	30	17	16	25	23	22	14	21	16	12	7	5	1	209
16. Cancer (Malignant Disease), ...	...	...	...	2	3	1	7	31	91	210	317	231	78	971
17. Rheumatic Fever, ...	...	...	...	5	7	5	8	15	9	7	13	7	3	79
18. Alcoholism, ...	...	...	1	...	...	...	...	6	19	7	4	3	...	40
19. Cerebro-Spinal Fever, ...	8	7	7	5	3	2	...	1	...	...	...	...	...	33
20. Meningitis (not Tubercular), ...	70	39	38	17	4	7	5	3	6	6	2	...	...	199
21. Cerebral Hæmorrhage (Apopl.) ...	5	2	...	...	...	1	7	6	28	101	172	243	122	687
22. Other Nervous Diseases, ...	155	36	23	11	10	5	14	29	60	68	75	92	61	639
23. Organic Heart Disease, ...	4	1	2	8	22	23	29	73	123	214	255	283	133	1,170
24. Other Circulatory Diseases, ...	6	4	1	3	6	9	10	22	34	70	114	179	105	563
25. Bronchitis, ...	215	69	17	6	5	3	1	11	39	94	186	273	158	1,077
26. Pneumonia (all forms), ...	414	261	124	35	9	22	26	78	134	151	167	106	60	1,587
27. Other Respiratory Diseases, ...	68	25	16	5	4	4	3	17	20	27	34	34	23	280
28. Diarrhoea and Enteritis, ...	536	135	30	12	5	3	2	8	10	14	25	18	14	812
29. Appendicitis and Typhlitis, ...	...	3	2	14	11	10	7	9	5	8	4	2	1	76
30. Cirrhosis of the Liver, ...	...	...	...	...	...	...	...	2	5	14	13	5	3	42
31. Other Digestive Diseases, ...	93	17	21	17	12	12	10	34	63	64	103	50	33	529
32. Nephritis and Bright's Disease, ...	3	3	9	15	6	12	14	48	54	112	121	94	31	522
33. Puerperal Fever, ...	...	...	...	...	...	2	11	24	14	...	...	...	...	51
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	...	...	...	...	...	2	14	35	28	1	...	...	...	80
35. Congenital Debility and Malformation, including Premature Birth, ...	1,166	18	9	3	1	1	1	...	...	...	...	...	...	1,199
36. Violence, ...	50	23	62	32	22	29	33	71	78	89	62	42	32	625
37. Unknown, ...	17	1	2	...	...	...	1	3	9	5	6	7	2	53
38. All others, ...	208	57	28	28	19	26	18	71	116	140	192	292	445	1,640
All Causes, ...	3,681	1,413	1,004	469	285	359	390	1,000	1,272	1,677	2,022	2,047	1,330	16,949
+ Inward Transfer Deaths, ...	25	6	10	17	8	17	39	96	111	131	102	117	65	744
Number per 1,000 dying in several Age-Periods, ...	3,706	1,419	1,014	486	293	376	429	1,096	1,383	1,808	2,124	2,164	1,395	17,693
1912, ...	210	80	57	28	17	21	24	62	78	102	120	122	79	1,000
1912, ...	209	80	60	46	45	140	229	191	...	...	...	...	...	1,000

TABLE XII.—GLASGOW, 1913.—DEATHS IN INSTITUTIONS (INTRA-MURAL) OF PERSONS BELONGING TO THE CITY, BUT WITH NO HOME ADDRESS, SHOWING CAUSES and AGES.

CAUSE OF DEATH.	AGES.													Total
	-1	-2	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	
1. Enteric Fever, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. Typhus Fever, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3. Smallpox, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4. Measles, ... ..	2	2	6	...	...	...	...	...	...	...	...	...	...	...
5. Scarlet Fever, ... ..	...	...	1	...	...	...	...	...	...	...	...	...	...	...
6. Whooping-cough, ... ..	1	1	5	...	...	...	...	...	...	...	...	...	...	...
7. Diphtheria and M. Croup, ...	1	1	1	...	...	1	...	...	...	...	...	...	...	...
8. Croup, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Influenza, ... ..	...	...	...	...	...	...	...	...	...	...	2	1	1	...
10. Erysipelas, ... ..	...	...	...	...	...	...	...	...	...	...	...	1	...	...
11. Septicæmia, ... ..	...	...	...	...	...	...	...	...	...	1	1	...	...	...
11A Other Septic Diseases, ...	...	...	...	...	...	...	...	...	...	1	2	2	...	...
12. Pulmonary Tuberculosis, ...	...	...	1	2	...	4	6	19	28	43	28	13	1	144
13. Tuberculous Meningitis,...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
14. Abdominal Tuberculosis, ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
15. Other Tuberculous Diseases, ...	1	1	1	...	7	2	3	4	2	...	1	1	...	29
16. Cancer (Malignant Disease), ...	...	...	...	...	...	...	1	1	3	9	17	7	6	44
17. Rheumatic Fever, ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18. Alcoholism, ... ..	...	...	...	...	...	...	...	...	1	2	...	...	...	...
19. Cerebro-Spinal Fever, ... ..	...	...	...	...	1	...	...	...	...	...	...	...	...	...
20. Meningitis (not Tuberculous), ...	...	...	...	...	1	...	...	...	1	...	...	...	...	...
21. Cerebral Hæmorrhage (Apoplexy)	...	...	...	...	...	...	...	...	4	7	17	24	4	59
22. Other Nervous Diseases, ... ..	...	1	1	...	...	...	...	3	5	8	6	9	...	33
23. Organic Heart Diseases, ... ..	...	...	...	...	...	...	...	4	6	17	16	17	12	77
24. Other Circulatory Diseases, ...	...	...	...	...	...	...	...	2	1	2	15	32	26	77
25. Bronchitis, ... ..	2	...	...	...	...	...	...	...	4	5	15	22	15	66
26. Pneumonia (all forms), ... ..	1	...	1	...	...	1	2	3	13	20	26	14	4	84
27. Other Respiratory Diseases, ...	...	...	...	...	...	...	...	...	4	1	...	1	4	14
28. Diarrhœa and Enteritis,...	9	1	...	...	...	...	...	...	...	...	...	1	1	11
29. Appendicitis and Typhlitis, ...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
30. Cirrhosis of the Liver, ... ..	...	...	...	...	...	...	...	...	...	1	...	...	...	...
31. Other Digestive Diseases, ... ..	1	...	...	...	...	...	...	...	1	7	4	2	1	14
32. Nephritis and Bright's Disease,...	...	...	...	...	...	1	...	2	5	5	8	8	2	33
33. Puerperal Fever, ... ..	...	...	...	...	...	...	...	1	...	...	...	...	...	...
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35. Congenital Debility and Malform- ation, including premature birth, ...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
36. Violence, ... ..	...	...	...	...	...	...	4	7	16	10	7	3	1	44
37. Unknown, ... ..	1	...	...	...	...	...	...	1	...	2	2	3	...	...
38. All other causes, ... ..	8	...	...	...	2	...	2	6	9	7	8	24	29	99
Totals, ... ..	38	7	17	2	11	9	18	53	103	149	175	185	107	877

TABLE XIII.

GLASGOW, 1913.—DEATHS IN INSTITUTIONS (INTRA-MURAL) OF PERSONS BELONGING TO THE CITY, BUT WITH NO HOME ADDRESS, SHOWING WHERE DEATH OCCURRED.

Cause of Death.	Poor Law Institutions.	Model Lodging- houses.	General Hospitals.	Infectious Diseases Hospitals.	Homes for Old Men and Women and Orphans, Barracks, Prisons, Asylums, and Harbour.	Total.
1. Enteric Fever, ... ..	...	...	...	...	...	...
2. Typhus Fever, ... ..	...	...	...	...	...	...
3. Smallpox, ... ..	...	...	...	...	...	...
4. Measles, ... ..	...	...	...	10	...	10
5. Scarlet Fever, ... ..	...	...	...	1	...	1
6. Whooping-cough, ... ..	...	...	...	7	...	7
7. Diphtheria and M. Croup,	...	...	...	4	...	4
8. Croup, ... ..	...	...	...	...	...	...
9. Influenza, ... ..	3	...	...	...	1	4
10. Erysipelas, ... ..	1	...	...	...	...	1
11. Septicæmia, ... ..	2	...	...	...	...	2
11A Other Septic Diseases, ...	4	1	...	...	...	5
12. Pulmonary Tuberculosis,	137	...	...	3	5	145
13. Tuberculous Meningitis,	2	...	...	...	...	2
14. Abdominal Tuberculosis,	1	...	...	...	...	1
15. Other Tuberculous Diseases,	18	...	...	1	4	23
16. Cancer (Malignant Disease),	28	...	12	...	4	44
17. Rheumatic Fever, ... ..	...	...	...	...	...	...
18. Alcoholism, ... ..	1	2	...	...	...	3
19. Cerebro-spinal Fever, ... ..	...	...	1	...	...	1
20. Meningitis (not Tuberculous),	1	...	1	...	...	2
21. Cerebral Hæmorrhage (Apoplexy)	29	3	6	...	18	56
22. Other Nervous Diseases, ...	28	2	...	...	3	33
23. Organic Heart Disease, ... ..	58	3	3	...	8	72
24. Other Circulatory Diseases,	65	...	2	...	11	78
25. Bronchitis, ... ..	43	6	...	1	13	63
26. Pneumonia (all forms), ... ..	62	2	7	2	12	85
27. Other Respiratory Diseases,	4	1	1	...	4	10
28. Diarrhœa and Enteritis, ... ..	9	...	...	...	3	12
29. Appendicitis and Typhlitis,	...	...	1	...	...	1
30. Cirrhosis of the Liver, ... ..	1	...	...	...	...	1
31. Other Digestive Diseases, ... ..	8	...	6	...	2	16
32. Nephritis and Bright's Disease,	27	...	2	...	2	31
33. Puerperal Fever, ... ..	1	...	...	...	...	1
34. Other Accidents and Diseases of Pregnancy and Parturition, ...	...	...	...	...	...	...
35. Congenital Debility and Malforma- tion, including premature birth,	4	...	4	...	...	8
36. Violence, ... ..	5	5	14	...	24	48
37. Unknown, ... ..	1	7	...	...	1	9
38. All other Causes, ... ..	52	5	3	1	34	95
Total, ... ..	595	37	63	30	149	874



TABLE XIV.—GLASGOW.—DEATHS at all AGES

MUNICIPAL WARDS.	GENERAL DISEASES.																		
	Enteric Fever.	Typhus Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping- Cough.	Diphtheria and Membranous Croup.	Croup.	Influenza.	Erysipelas.	Septicæmia.	Other Septic Diseases.	Pulmonary Tuberculosis.	Tuberculous Meningitis.	Abdominal Tuberculosis.	Other Tuberculous Diseases.	Cancer (Malignant Disease).	Rheumatic Fever.	Alcoholism.
	1	2	3	4	5	6	7	8	9	10	11	11A	12	13	14	15	16	17	18
1. Dalmarnock, ...	4	...	...	51	9	43	10	1	2	1	4	...	58	17	9	10	49	3	...
2. Calton, ...	1	3	..	27	10	43	10	1	...	4	1	...	68	14	10	6	43	5	...
3. Mile-end, ...	1	...	...	32	11	63	11	...	2	2	1	2	60	20	12	15	45	4	3
4. Whitevale, ...	1	...	...	24	5	35	4	...	1	2	...	1	45	6	11	9	25	...	2
5. Dennistoun, ...	4	...	...	8	4	11	...	...	2	1	1	...	35	4	6	5	32	1	2
6. Springburn, ...	...	...	...	7	4	26	6	2	3	2	1	...	46	16	19	9	33	2	1
7. Cowlands, ...	1	...	...	6	5	24	13	...	1	2	1	...	39	9	7	5	22	...	...
8. Townhead, ...	1	...	...	13	4	23	5	1	1	3	1	1	56	15	12	10	28	6	1
9. Blackfriars, ...	2	...	...	16	1	12	3	...	2	1	1	...	44	8	1	4	14	1	1
10. Exchange, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...
11. Blythwood, ...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	4	...	...
12. Broomielaw, ...	...	...	...	1	...	8	1	...	...	...	1	...	19	2	...	1	7	2	3
13. Anderston, ...	...	...	...	10	3	32	6	...	11	...	1	1	49	10	5	7	29	2	1
14. Sandyford, ...	...	1	...	14	6	26	2	...	2	1	...	1	29	6	4	7	27	3	3
15. Park, ...	...	...	...	...	1	3	3	...	1	2	...	...	12	4	2	4	26	2	3
16. Cowcaddens, ...	2	...	...	17	5	56	13	...	1	3	...	2	58	12	6	3	39	3	4
17. Woodside, ...	4	...	...	16	5	47	15	...	2	5	3	...	65	13	4	6	40	...	...
18. Hutchesontown, ...	2	...	...	28	6	30	6	...	3	4	...	2	41	15	10	7	44	5	1
19. Gorbals, ...	1	...	...	17	...	23	3	...	2	1	...	2	52	2	6	8	31	3	...
20. Kingston, ...	4	...	...	17	6	33	5	...	8	4	1	1	39	15	9	5	33	1	1
21. Govanhill, ...	1	...	...	17	5	28	7	...	3	5	...	1	35	11	13	5	14	3	2
22. Langside, ...	1	..	...	1	10	3	1	...	4	...	1	...	26	3	1	7	34	6	1
23. Pollokshields, ...	...	...	...	...	1	...	2	...	2	1	1	1	9	1	...	...	23	1	1
24. Kelvinside, ...	...	...	...	3	...	5	...	...	7	1	3	...	6	1	2	1	27	2	1
25. Maryhill, ...	...	...	...	8	6	23	10	...	8	2	2	1	44	12	8	8	35	4	1
26. Kinning Park, Institutions, &c.,	1 ...	2 ...	... ...	13 10	... 1	14 7	1 4	... ...	1 1	1 ...	... 2	... 2	32 115	5 1	2 1	3 13	10 35	1 ...	... 3
Old Area, ...	31	6	...	356	108	618	141	5	70	78	26	19	1,085	222	160	158	751	60	35
27. Plantation, ...	1	...	...	30	...	23	7	...	1	2	1	2	47	10	...	7	30	2	...
28. Ibrox, ...	...	...	...	21	3	15	1	...	1	4	...	...	25	11	3	4	17	1	...
29. Govan (Central),	2	...	...	63	3	16	9	...	2	1	...	1	22	6	7	5	20	1	...
30. Fairfield ...	...	...	...	21	2	9	1	...	1	...	...	1	27	4	8	1	15	1	1
31. Partick (East).	...	...	...	17	3	7	3	1	3	1	...	...	33	6	5	5	31	...	1
32. „ (Central)	...	...	...	35	4	18	2	...	2	1	1	1	22	10	7	2	19	4	1
33. „ (West),	...	...	...	12	1	17	2	...	1	...	1	...	14	9	3	5	15	2	...
34. Jordanhill, ...	...	...	...	7	...	5	3	...	1	4	2	...	11	6	...	...	11	1	...
35. Pollokshaws, ...	...	...	...	1	1	2	11	...	1	2	...	...	14	3	3	2	17	2	2
36. Cathcart, ...	...	...	...	2	1	2	3	...	1	...	1	...	7	2	1	4	14	3	...
37. Shettleston and Tollcross, Institutions, &c.,	3 ...	... ...	... ...	13 ...	9 ...	21 ..	4 ...	... ...	1 3	... 1	... ...	... 3	28 30	12 1	9 ...	6 10	22 9	2 ...	... 44
Greater Glasgow, ...	37	6	...	578	135	753	187	6	88	64	32	27	1,365	302	206	209	971	79	40
+ Inward Transfer Deaths, ...	37	6	...	578	135	753	187	6	92	64	34	30	1,457	307	213	219	996	80	44

1 each WARD during 1913.

NERVOUS DISEASES.				CIRCULATORY DISEASES.		RESPIRATORY DISEASES.			DIGESTIVE DISEASES.				OTHER FORMS OF DISEASE.							Totals.	WARDS.
Fever.	Meningitis (not Tuberculous).	Cerebral Hemorrhage (Apoplexy).	Other Nervous Diseases.	Organic Heart Disease.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all Forms).	Other Respiratory Diseases.	Diarrhea and Enteritis.	Appendicitis and Typhitis.	Cirrhosis of the Liver.	Other Digestive Diseases.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violence.	Unknown.	All other Causes.		
9	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
5	10	24	31	60	27	60	108	19	73	3	1	23	23	5	4	74	40	2	67	930	1
6	17	32	53	22	70	73	10	35	1	3	25	27	...	2	49	31	13	71	786	2	
4	12	34	23	51	26	51	101	14	77	4	3	23	24	3	4	61	26	2	65	892	3
6	18	20	50	19	37	49	8	24	1	1	19	13	3	4	53	18	2	57	573	4	
7	23	16	30	16	18	23	6	12	1	1	12	15	...	4	34	13	...	50	398	5	
8	18	31	51	23	49	54	13	44	2	3	23	13	2	4	75	23	...	69	682	6	
12	18	23	26	25	24	28	8	37	3	1	11	10	2	1	42	15	1	40	462	7	
4	31	23	45	15	55	54	8	28	2	...	19	20	1	1	49	23	4	63	626	8	
4	11	8	36	12	21	48	4	23	...	2	15	16	1	1	31	9	3	32	388	9	
...	3	2	2	1	1	5	...	2	...	1	2	2	2	1	...	2	2	1	3	33	10
1	4	2	4	3	2	1	...	1	...	...	...	2	3	...	...	2	1	1	2	36	11
1	4	4	7	10	7	7	10	2	8	...	...	4	1	1	...	12	4	...	16	143	12
1	8	25	14	32	18	47	55	7	36	2	...	12	15	1	3	29	22	1	59	554	13
2	4	14	6	29	15	36	36	4	22	2	...	11	17	1	2	33	16	1	51	434	14
4	26	8	18	11	14	17	8	7	...	...	11	11	...	1	8	9	...	46	262	15	
8	31	22	40	22	55	72	7	45	3	2	25	26	2	1	50	20	2	69	726	16	
10	30	37	53	28	45	66	9	23	2	3	25	21	1	7	40	33	1	45	704	17	
2	11	25	21	50	12	48	83	9	37	5	1	25	18	4	4	57	28	1	49	694	18
6	24	26	46	12	32	68	8	23	1	2	12	23	2	1	35	17	...	52	541	19	
1	3	21	28	43	14	40	50	13	36	7	3	18	19	3	2	29	24	2	52	590	20
5	15	18	41	14	17	47	11	20	1	...	17	14	3	3	44	18	1	52	491	21	
5	14	31	31	15	14	32	7	8	...	2	25	16	1	4	16	15	...	55	390	22	
1	13	10	28	15	10	6	3	4	2	...	13	13	1	1	5	3	...	37	208	23	
1	6	9	20	10	6	17	6	4	3	2	5	6	...	...	2	3	...	29	188	24	
6	22	21	25	24	29	54	8	16	4	1	16	16	2	4	38	25	1	63	547	25	
1	1	5	10	7	2	14	27	7	11	...	1	6	3	1	1	34	5	...	19	241	26
1	2	41	19	50	78	57	71	9	12	1	1	14	28	1	...	6	46	9	81	722	
9	149	517	498	931	486	859	1,255	208	668	50	34	413	413	42	59	910	489	48	1,294	13,241	
1	7	24	20	32	13	41	50	5	24	2	1	18	8	2	1	34	20	...	42	508	27
1	6	10	13	26	5	18	32	14	11	...	...	7	9	...	2	38	14	1	35	348	28
6	9	12	14	18	8	29	49	9	11	2	...	12	20	1	4	40	20	...	32	454	29
2	3	16	8	14	9	17	26	5	5	2	2	4	10	...	1	17	8	...	26	267	30
5	25	10	30	7	25	25	5	18	2	...	7	15	...	...	1	16	17	1	36	361	31
1	6	16	18	20	10	23	35	5	17	2	3	17	16	...	1	29	5	...	39	392	32
2	4	14	10	12	8	7	22	9	15	5	...	13	7	1	3	34	11	...	36	295	33
1	1	9	5	13	2	5	14	2	7	5	...	7	6	...	...	15	6	1	10	160	34
2	4	13	18	5	16	15	4	10	2	...	9	4	1	1	8	4	2	22	201	35	
1	16	5	13	4	2	7	4	3	1	1	7	3	...	5	12	7	...	17	149	36	
6	9	11	21	6	29	43	9	23	3	1	13	8	4	2	44	22	...	37	421	37	
...	15	14	22	...	6	14	1	...	...	...	2	3	...	...	2	2	...	14	152		
3	199	687	639	1,170	563	1,077	1,587	280	812	76	42	529	522	51	80	1,199	625	53	1,640	16,949	
5	206	733	778	1,229	585	1,092	1,615	295	833	80	42	548	529	51	84	1,205	698	56	1,761	17,693	



TABLE XV.—GLASGOW.—DEATH-RATES per MILLION fr

MUNICIPAL WARDS.	GENERAL DISEASES.																	
	Enteric Fever.	Typhus Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria and Membranous Group.	Croup.	Influenza.	Erysipelas.	Septicæmia.	Other Septic Diseases.	Pulmonary Tuberculosis.	Tuberculous Meningitis.	Abdominal Tuberculosis.	Other Tuberculous Diseases.	Cancer (Malignant Disease).	Rheumatic Fever.
	1	2	3	4	5	6	7	8	9	10	11	11A	12	13	14	15	16	17
1. Dalmarnock, ...	77	...	...	986	174	832	193	19	39	19	77	...	1,122	329	174	193	948	58
2. Calton, ...	29	87	...	782	289	1,245	289	29	...	116	29	...	1,969	405	289	174	1,245	145
3. Mile-End, ...	22	...	...	688	236	1,353	236	...	43	43	21	43	1,289	430	258	322	967	86
4. Whitevale, ...	31	...	...	757	158	1,104	126	...	31	63	...	31	1,419	189	347	284	788	...
5. Dennistoun, ...	104	...	...	208	104	286	...	...	52	26	26	...	911	104	156	130	833	26
6. Springburn, ...	...	...	...	155	89	576	133	44	66	44	22	...	1,018	354	421	199	731	44
7. Cowlares, ...	33	...	...	199	166	795	431	...	33	66	33	...	1,292	298	232	166	729	...
8. Townhead, ...	28	...	...	368	113	650	141	28	28	85	28	28	1,584	424	339	283	793	170
9. Blackfriars, ...	103	...	...	827	52	620	155	...	103	52	52	...	2,273	413	52	207	723	52
10. Exchange, ...	...	...	...	...	...	...	...	...	...	...	...	...	694	...	...	...	1,387	...
11. Blythswood, ...	...	...	...	...	...	...	...	...	...	...	...	423	846	...	...	...	1,693	...
12. Broomielaw, ...	...	...	...	166	...	1,329	166	...	...	...	166	...	3,156	332	...	166	1,163	332
13. Anderston, ...	...	...	...	357	107	1,141	214	...	392	...	36	36	1,747	357	178	250	1,034	71
14. Sandyford, ...	...	43	...	602	259	1,117	86	...	86	43	...	43	1,246	258	172	301	1,160	129
15. Park, ...	...	...	...	...	45	135	135	...	45	90	...	...	540	180	90	180	1,172	90
16. Cowcaddens, ...	60	...	...	511	150	1,684	391	...	30	90	...	60	1,744	361	180	90	1,172	90
17. Woodside, ...	97	...	...	388	121	1,141	364	...	49	121	73	...	1,577	315	97	146	971	...
18. Hutchesontown, ...	51	...	...	715	153	766	153	...	77	102	...	51	1,945	383	255	179	1,123	128
19. Gorbals, ...	30	...	...	514	...	695	91	...	60	30	...	60	1,571	60	181	242	936	91
20. Kingston, ...	124	...	...	527	186	1,022	155	...	248	124	31	31	1,208	465	279	155	1,022	31
21. Govanhill, ...	27	...	...	458	134	754	188	...	81	134	...	27	942	296	350	134	377	81
22. Langside, ...	24	...	...	24	239	72	24	...	96	...	24	...	622	72	24	167	813	145
23. Pollokshields, ...	...	...	...	...	55	...	110	...	110	55	55	55	495	55	...	...	1,265	55
24. Kelvinside, ...	...	...	...	136	...	227	...	...	318	45	136	...	272	45	91	45	1,225	91
25. Maryhill, ...	...	...	...	198	148	568	247	...	198	49	49	25	1,087	296	198	198	865	99
26. Kinning Park, ...	78	157	...	1,018	...	1,097	78	...	77	78	...	...	2,506	392	157	235	784	78
Institutions and Harbour, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Old City, ...	39	8	...	449	136	780	178	6	88	61	33	24	1,369	280	202	199	948	76
27. Plantation, ...	35	...	...	1,044	...	801	244	...	35	70	35	70	1,635	348	...	244	1,044	70
28. Ibrox, ...	...	...	...	1,030	147	735	49	...	49	196	...	...	1,227	539	147	196	834	49
29. Govan (Central), ...	88	...	...	2,758	131	700	394	...	88	44	...	44	963	263	306	219	876	44
30. Fairfield, ...	...	...	...	991	94	425	47	...	47	...	...	47	1,274	189	377	47	708	47
31. Partick (East), ...	...	...	...	752	133	310	133	44	133	44	...	...	1,461	266	221	221	1,372	...
32. Do. (Central), ...	...	...	...	1,265	145	651	72	...	72	36	36	36	795	362	253	72	687	145
33. Do. (West), ...	...	...	...	555	46	786	92	...	46	...	46	...	647	416	139	231	694	92
34. Jordanhill, ...	...	...	...	489	...	319	210	...	70	280	140	...	769	419	...	...	769	70
35. Pollokshaws, ...	...	...	...	73	73	147	809	...	73	147	...	...	1,028	220	220	147	1,248	247
36. Cathcart, ...	...	...	...	137	68	137	205	...	68	...	68	...	479	137	68	274	958	205
37. Shettleston and Tollcross, ...	110	...	...	477	330	771	147	...	37	...	...	...	1,028	440	330	220	808	73
Added Areas, ...	25	...	...	926	113	563	192	4	75	67	25	33	1,169	334	192	213	918	79
Greater Glasgow, ...	36	6	...	560	131	729	181	6	85	62	31	26	1,322	293	200	202	941	77
+ Inward Transfer Deaths, ...	36	6	...	560	131	729	181	6	89	62	33	29	1,412	297	206	212	965	78



## DIFFERENT DISEASES in each MUNICIPAL WARD during 1913.

NERVOUS DISEASES.			CIRCULATORY DISEASES.		RESPIRATORY DISEASES.			DIGESTIVE DISEASES.					OTHER FORMS OF DISEASE.						Totals.	WARDS.
Menstritis (not Tuberculous)	Cerebral Hemorrhage (Apoplexy)	Other Nervous Diseases.	Organic Heart Disease.	Other Circulatory Diseases.	Bronchitis.	Pneumonia (all forms).	Other Respiratory Diseases.	Diarrhoea and Enteritis.	Appendicitis and Typhilitis.	Cirrhosis of the Liver.	Other Digestive Diseases.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Deformity and Malformation, including Premature Birth.	Violence.	Unknown.	All other Causes.		
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38		
193	464	600	1,160	522	1,160	2,089	367	1,412	58	19	445	445	97	77	1,431	774	39	1,296	17,985	1
174	492	927	1,535	637	2,027	2,114	289	1,014	29	87	724	782	...	58	1,419	898	377	2,055	22,764	2
258	730	494	1,096	559	1,096	2,170	301	1,654	86	64	494	516	64	86	1,316	559	43	1,396	19,164	3
189	568	631	1,577	599	1,168	1,545	252	757	31	32	599	410	95	126	1,671	568	63	1,797	18,069	4
182	598	416	780	416	468	598	157	312	26	26	312	390	...	104	885	338	...	1,302	10,354	5
177	399	686	1,129	509	1,085	1,196	288	974	44	66	509	288	44	89	1,661	509	...	1,528	15,099	6
397	596	762	861	828	795	927	265	1,225	99	33	364	331	66	33	1,391	497	33	1,325	15,301	7
113	876	650	1,272	424	1,555	1,527	226	792	56	...	537	566	28	28	1,385	650	113	1,782	17,698	8
207	568	413	1,860	620	1,085	2,480	206	1,188	...	103	775	826	52	52	1,602	465	155	1,653	20,046	9
...	2,080	1,387	1,387	694	694	3,467	...	1,387	...	694	1,387	1,387	693	...	1,387	1,387	693	2,080	22,885	10
423	1,693	846	1,694	1,270	846	423	...	423	...	...	846	1,270	...	...	846	423	423	846	15,234	11
664	664	1,163	1,661	1,163	1,163	1,661	332	1,329	...	...	664	166	166	...	1,993	664	...	2,657	23,750	12
285	891	499	1,140	642	1,675	1,961	249	1,283	71	...	428	535	36	107	1,034	784	36	2,103	19,751	13
172	602	258	1,246	645	1,547	1,547	172	944	86	...	473	731	43	86	1,418	688	43	2,192	18,653	14
180	1,172	360	811	495	631	766	360	315	...	...	495	495	...	45	360	405	...	2,073	11,800	15
241	932	661	1,203	661	1,654	2,166	210	1,352	90	60	752	782	60	30	1,503	601	60	2,075	21,826	16
243	728	898	1,286	679	1,092	1,602	218	558	49	73	607	510	24	169	971	801	24	1,092	17,084	17
281	638	536	1,276	306	1,225	2,119	230	944	128	26	638	459	102	102	1,455	715	26	1,251	17,715	18
181	725	785	1,390	362	967	2,055	242	695	30	60	362	695	60	30	1,057	514	...	1,571	16,342	19
93	651	867	1,332	434	1,239	1,549	403	1,115	217	93	558	589	93	62	898	744	62	1,610	18,279	20
135	404	484	1,104	377	458	1,265	296	538	27	...	458	377	81	81	1,184	484	27	1,400	13,217	21
120	335	741	741	359	335	775	168	191	...	48	598	383	24	96	383	359	...	1,316	9,328	22
55	715	550	1,540	825	550	330	165	220	110	...	715	715	55	55	275	165	...	2,037	11,442	23
45	272	408	907	454	272	761	272	181	136	91	227	272	...	...	91	136	...	1,316	8,527	24
148	543	519	618	593	716	1,334	198	395	99	25	395	395	49	99	939	617	25	1,556	13,513	25
78	392	783	548	157	1,096	2,115	548	863	...	78	470	235	78	78	2,664	392	...	1,488	18,877	26
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
188	652	628	1,175	613	1,084	1,583	262	843	63	43	521	521	53	74	1,148	617	61	1,633	16,706	
244	835	696	1,114	453	1,427	1,740	174	836	70	35	627	278	70	35	1,184	696	...	1,462	17,686	27
294	490	637	1,276	245	883	1,569	686	539	...	...	343	441	...	98	1,864	686	49	1,716	17,063	28
394	525	613	788	350	1,270	2,145	394	482	88	...	525	876	44	175	1,751	876	...	1,400	19,877	29
142	755	377	660	425	802	1,226	236	236	94	94	189	472	...	47	802	377	...	1,226	12,594	30
221	1,106	443	1,328	310	1,106	1,106	221	797	89	...	310	664	...	44	708	752	44	1,594	15,977	31
217	578	651	723	362	832	1,266	181	615	72	108	615	579	...	36	1,049	181	...	1,410	14,174	32
185	647	462	555	370	324	1,017	416	694	231	...	601	324	46	139	1,572	509	...	1,664	13,640	33
70	629	350	909	140	350	979	140	489	350	...	489	419	...	...	1,048	419	70	699	11,185	34
147	294	954	1,321	367	1,175	1,101	294	734	147	...	661	294	73	73	587	294	147	1,615	14,757	35
68	1,094	342	889	274	137	479	274	205	68	68	479	205	...	342	821	479	...	1,163	10,191	36
220	330	404	771	220	1,064	1,579	330	844	110	37	477	294	147	73	1,616	808	...	1,358	15,453	37
209	709	588	997	321	910	1,386	300	601	109	33	484	455	38	88	1,206	568	21	1,444	15,474	
32193	666	619	1,133	545	1,043	1,538	271	787	74	41	512	506	49	78	1,161	605	51	1,589	16,420	
3200	710	754	1,190	567	1,058	1,565	286	807	78	41	531	512	49	81	1,167	676	54	1,706	17,141	

TABLE XVI.—GLASGOW, 1913.—DEATHS OCCURRING

MUNICIPAL WARDS.	All Causes.	GENERAL DISEASES.																	
		Enteric Fever.	Typhus Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria and Membranous Group.	Croup.	Influenza.	Erysipelas.	Septicæmia.	Other Septic Diseases.	Pulmonary Tuberculosis.	Tuberculous Meningitis.	Abdominal Tuberculosis.	Other Tuberculous Diseases.	Cancer (Malignant Disease).	Rheumatic Fever.
1. Dalmarnock, ...	269	4	...	...	18	9	12	9	...	...	1	2	...	31	3	1	6	19	1
2. Calton, ...	267	1	3	...	15	10	13	8	...	...	3	1	...	42	5	3	3	16	2
3. Mile-end, ...	282	1	...	...	14	10	22	8	...	...	2	1	1	32	4	2	6	20	1
4. Whitevale, ...	165	1	...	...	3	4	9	4	...	...	1	...	1	18	...	3	7	13	...
5. Dennistoun, ...	92	4	...	...	1	3	5	...	...	...	...	1	...	8	...	1	1	6	...
6. Springburn, ...	156	...	...	...	1	4	6	6	...	...	1	1	...	20	1	2	2	8	...
7. Cowlares, ...	146	1	...	...	3	5	6	12	...	...	...	...	...	20	2	2	...	6	...
8. Townhead, ...	188	...	...	...	3	4	3	4	...	...	2	...	...	21	4	6	3	10	1
9. Blackfriars, ...	131	2	...	...	7	1	5	2	...	...	1	1	...	24	4	...	3	5	1
10. Exchange, ...	12	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
11. Blythswood, ...	8	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	2	...
12. Broomielaw, ...	62	...	...	...	1	...	2	1	...	...	...	1	...	11	...	...	1	3	...
13. Anderston, ...	146	...	...	...	2	3	5	6	...	...	...	1	1	17	2	2	2	9	...
14. Sandyford, ...	122	...	1	...	4	6	5	2	...	...	1	...	1	12	2	...	3	8	...
15. Park, ...	44	...	...	...	...	1	...	3	...	...	1	...	...	...	...	...	1	5	...
16. Cowcaddens, ...	248	2	...	...	5	5	16	11	...	...	1	...	1	22	4	...	...	24	...
17. Woodside, ...	236	3	...	...	2	5	11	15	...	...	4	1	...	32	6	...	4	13	...
18. Hutchesontown, ...	168	2	...	...	9	5	12	3	...	...	3	...	2	11	3	1	5	11	1
19. Gorbals, ...	153	1	...	...	2	...	9	3	...	...	1	...	2	26	1	2	6	9	...
20. Kingston, ...	164	4	...	...	5	6	6	4	...	...	3	...	1	20	3	2	2	9	1
21. Govanhill, ...	93	1	...	...	1	5	3	7	...	...	2	...	...	10	3	...	1	4	...
22. Langside, ...	66	1	...	...	...	9	...	1	...	...	...	...	...	5	...	...	1	6	2
23. Pollokshields, ...	27	...	...	...	...	...	...	...	...	...	1	1	3	...	...	...	...	3	...
24. Kelvinside, ...	33	...	...	...	...	...	1	2	...	...	...	...	...	3	...	1	...	5	...
25. Maryhill, ...	127	...	...	...	...	6	4	8	...	...	2	2	...	12	1	...	3	8	...
26. Kinning Park,...	63	1	2	...	2	...	2	1	...	...	1	...	...	13	2	...	1	6	...
27. Plantation, ...	119	1	...	...	8	...	1	6	...	...	1	...	...	17	1	...	3	11	...
28. Ibrox, ...	83	...	...	...	2	3	2	...	...	...	3	...	...	11	3	...	1	6	...
29. Govan (Central),	98	2	...	...	7	3	2	5	1	1	...	1	9	...	...	3	7	...	
30. Fairfield, ...	60	...	...	...	1	2	1	1	...	...	...	1	11	1	...	1	6	...	
31. Partick (East),...	103	...	...	...	1	2	1	3	1	...	1	...	...	14	2	1	2	5	...
32. Partick (Central),	89	...	...	...	7	4	2	2	...	...	...	1	1	6	2	...	...	5	2
33. Partick (West),	50	...	...	...	...	1	2	...	...	...	...	...	...	4	1	...	...	1	...
34. Jordanhill, ...	27	...	...	...	...	...	...	1	...	...	...	1	...	2	1	...	...	2	...
35. Pollokshaws, ...	33	...	...	...	...	1	1	8	...	...	1	...	...	3	...	...	...	4	...
36. Cathcart, ...	20	...	...	...	...	1	...	2	...	...	...	1	...	...	...	1	1	3	...
37. Tollcross and Shettleston, ...	73	...	...	...	...	8	...	4	...	...	...	1	...	7	2	...	4	3	1
Institutions and Harbour, ...	777	...	...	...	9	...	7	3	...	3	1	1	4	141	1	1	16	43	...
City, ...	5,000	32	6	...	133	126	176	155	1	4	38	18	19	639	64	31	92	325	13



## IN INSTITUTIONS, NURSING HOMES, &amp;c.

DISEASES OF NERVOUS SYSTEM.				CIRCULATORY DISEASES.		RESPIRATORY DISEASES.			DIGESTIVE DISEASES.					Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation and Premature Birth.	Violence.	Unknown.	All Others.	WARDS.
Cerebro-Spinal Fever.	Meningitis (not Tuberculous).	Cerebral Hemorrhage (Apoplexy).	Others	Organic Heart Disease.	Others.	Bronchitis.	Pneumonia (All Forms).	Others.	Diarrhea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of the Liver.	Others									
1	1	4	9	20	19	10	20	1	13	3	1	9	8	2	1	4	11	1	15	1	
...	1	5	12	25	17	9	17	2	4	1	2	6	13	...	1	2	11	1	13	2	
...	2	9	9	13	19	6	32	...	8	3	1	13	10	2	2	5	11	...	13	3	
...	...	3	2	16	10	7	10	2	4	1	...	13	4	2	3	6	6	...	12	4	
...	...	4	6	10	3	3	5	1	2	1	1	3	3	...	1	3	6	...	9	5	
...	2	2	8	15	10	6	8	1	9	2	1	6	5	2	1	6	8	...	11	6	
...	...	4	5	9	16	5	10	3	5	3	...	3	3	1	1	4	6	...	11	7	
...	2	11	7	16	10	9	14	1	4	2	...	7	9	1	...	8	12	...	14	8	
...	2	3	1	7	7	6	15	1	3	...	...	5	4	1	1	5	4	...	9	9	
...	...	...	...	1	...	...	4	...	...	...	1	1	...	1	...	1	1	...	...	10	
...	...	...	2	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	11	
...	2	1	3	5	5	2	8	1	4	...	...	3	2	1	...	1	2	...	1	12	
1	...	7	2	10	10	7	20	1	4	2	...	4	3	1	1	2	9	...	11	13	
1	1	4	1	5	7	8	8	1	5	2	...	2	5	2	2	4	10	...	8	14	
...	2	2	2	...	1	...	3	3	2	...	...	5	1	...	1	...	4	...	7	15	
...	1	8	4	10	9	14	27	3	11	2	2	9	11	2	1	8	13	...	20	16	
...	2	7	10	10	14	13	21	2	5	2	...	11	11	1	2	6	13	...	10	17	
2	2	3	4	22	5	2	11	1	2	4	...	9	5	4	...	4	11	...	9	18	
...	1	3	5	12	6	3	21	2	...	1	...	3	11	1	1	3	7	...	11	19	
...	...	3	3	12	9	1	14	3	4	7	...	10	8	3	...	4	11	1	5	20	
...	2	4	1	6	2	2	5	3	...	1	...	4	1	3	1	4	11	...	6	21	
...	...	1	3	1	3	...	5	...	1	...	1	13	3	...	2	...	4	...	4	22	
...	...	...	1	1	...	...	1	1	...	2	...	8	1	...	...	2	...	...	3	23	
...	...	...	1	3	1	2	2	2	1	2	1	2	...	...	...	...	1	...	3	24	
...	1	2	4	3	11	3	9	2	4	3	...	6	3	2	1	4	10	...	13	25	
...	...	3	5	1	2	...	4	...	2	...	...	...	1	1	1	4	2	...	6	26	
...	...	4	6	11	2	4	13	2	...	...	...	6	2	2	1	2	8	...	7	27	
...	1	2	7	10	3	1	6	...	1	...	...	2	2	1	1	1	7	1	6	28	
1	...	4	2	7	2	4	6	1	...	1	...	4	4	...	1	3	10	...	6	29	
...	...	4	1	6	1	...	7	...	1	1	...	2	1	...	1	1	3	...	7	30	
...	1	7	3	7	6	2	10	1	2	2	1	4	9	...	1	2	6	...	6	31	
...	1	1	2	5	3	...	12	...	2	2	2	8	4	...	...	2	7	...	6	32	
1	1	...	3	3	2	...	4	2	1	5	...	5	1	...	1	1	5	...	6	33	
...	...	...	1	2	...	2	1	...	...	5	...	5	2	...	...	...	2	...	...	34	
...	...	...	...	2	2	...	1	...	...	2	...	2	...	...	...	...	3	...	2	35	
...	...	1	...	2	...	...	...	...	...	...	...	3	...	...	...	3	1	...	1	36	
...	1	1	3	1	1	2	2	1	1	4	...	4	2	3	1	2	6	...	8	37	
1	4	51	29	70	74	62	73	8	10	1	1	16	31	2	1	7	21	1	83		
8	33	168	166	359	292	195	429	52	115	67	15	217	184	41	32	114	264	5	362		



TABLE XVII.

GLASGOW, 1913.—DEATHS under ONE YEAR and DEATH-RATE per 1,000 BIRTHS in each MUNICIPAL WARD, with corresponding RATES for 1903-12.

MUNICIPAL WARDS.	Average of 5 years.	Rate per 1,000 Births.				1913.	
		1903-5.	1906-10.	1911.	1912.	Deaths.	Rate per 1,000 Births.
1. Dalmarnock, ...	147	143	146	152	112	271	146
2. Calton, ...	169	176	152	155	163	178	171
3. Mile-end, ...	149	149	141	159	148	256	147
4. Whitevale, ...	151	153	146	151	151	157	155
5. Dennistoun, ...	94	94	91	99	79	63	68
6. Springburn, ...	134	140	120	117	122	191	117
7. Cowlares, ...	119	121	113	130	107	131	143
8. Townhead, ...	139	140	134	161	145	140	150
9. Blackfriars, ...	161	166	158	180	178	82	129
10. Exchange, ...	125	123	169	200	200	7	250
11. Blythswood, ...	226	257	96	160	...	3	120
12. Broomielaw, ...	169	167	169	234	109	28	155
13. Anderston, ...	143	151	135	126	122	122	137
14. Sandyford, ...	157	146	154	145	124	87	169
15. Park, ...	85	91	82	85	98	16	80
16. Cowcaddens, ...	172	182	162	163	126	181	179
17. Woodside, ...	121	123	114	144	108	136	131
18. Hutchesontown, ...	134	142	131	140	123	173	133
19. Gorbals, ...	139	141	137	145	130	114	135
20. Kingston, ...	145	143	149	145	117	119	143
21. Govanhill, ...	107	111	105	76	106	115	103
22. Langside, ...	62	65	59	59	58	56	73
23. Pollokshields, ...	65	71	57	86	46	10	51
24. Kelvinside, ...	62	75	47	29	43	11	39
25. Maryhill, ...	101	110	99	106	93	118	93
26. Kinning Park, ...	...	...	136	145	138	63	144
— Institutions and Shipping, ...	...	...	...	...	...	38	...
Old City, ...	136	139	129	136	122	2,866	132
27. Plantation, ...	...	...	...	...	...	102	124
28. Ibrox, ...	...	...	...	...	...	97	146
29. Govan (Central), ...	...	...	...	...	...	135	163
30. Fairfield, ...	...	...	...	...	...	51	705
31. Partick (East), ...	...	...	...	...	...	53	106
32. „ (Central), ...	...	...	...	...	...	100	111
33. „ (West), ...	...	...	...	...	...	73	125
34. Jordanhill, ...	...	...	...	...	...	34	98
35. Pollokshaws, ...	...	...	...	...	...	35	90
36. Cathcart, ...	...	...	...	...	...	21	63
37. Shettleston and Tollcross, ...	...	...	...	...	...	114	125
Institutions and Harbour, ...	...	...	...	...	...	...	...
Added Area, ...	...	...	...	...	...	815	116
Greater Glasgow, ...	...	...	...	...	...	3,681	128
+ Inward Transfer Deaths, ...	...	...	...	...	...	3,706	129

CAUSE OF DEATH.	AGE IN WEEKS.				Total —4 weeks.	AGE IN MONTHS.												Total —1 year.	Group Totals.	Group Percent- ages.	Death-rate per 1,000 Male Births.			
	AGE IN WEEKS.					AGE IN MONTHS.																		
	-1	-2	-3	-4		-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12								
I. IMMATURETY, (a) Premature Birth, ... (b) Congenital Malformations, ... (c) Atelectasis, ... (d) Atrophy and Debility, ...	256 31 15 78	35 1 1 15	22 2 1 25	9 4 1 21	322 38 17 139	19 7 1 37	3 3 1 27	3 3 1 27	44	28	50	43	20	31	35	25	36	31	36	24	...	678	32.6	46.5
II. DISEASES OF RESPIRATORY SYSTEM,	3	9	14	18	44	28	50	43	20	31	35	25	36	31	36	24	...	403	19.3	27.6				
III. DISEASES OF DIGESTIVE SYSTEM, (a) Diarrheal, ... (b) Dentition, ... (c) Others, ...	1 1 1	4 1 1	7 4 4	9 3 3	21 9 9	30 3 5	45 7 7	45 7 7	21	30	45	38	23	25	16	28	24	9	15	18	292	345	16.5	23.7
IV. DISEASES OF NERVOUS SYSTEM, ...	14	6	10	9	39	9	10	8	16	2	11	10	6	6	6	3	...	126	6.0	8.6				
V. TUBERCULOUS DISEASES, (a) Abdominal Tuberculosis, ... (b) Tubercular Meningitis, ... (c) Other Forms, ...	1 ... ...	... ... ...	... ... ...	1 1 ...	2 1 ...	... 2 ...	4 2 ...	4 2 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	90	4.3	6.2
VI. ACCIDENTS OF BIRTH, (a) Injury, ... (b) Umbilical Hemorrhage, ...	21 1	2 ...	2 ...	...	25 1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27	1.3	1.9
VII. INFECTIOUS DISEASES, (a) Whooping-cough, ... (b) Measles, ... (c) Scarlet Fever, ... (d) Cerebro-Spinal Fever, ... (e) Erysipelas, ... (f) Diphtheria and Memb. Croup, (g) Chicken-pox, ...	... ... ... ... ... ... ...	... ... ... ... ... ... ...	1 ... ... 1 1 ...	4 ... ... 2 3 ...	5 ... ... 1 3 ...	12 ... ... 1 1 ...	16 3 ... 1 1 ...	16 3 ... 1 1 ...	...	...	...	...	...	...	...	...	...	...	...	...	...	283	13.6	19.4
VIII. SYPHILIS, ...	2	1	1	2	6	10	3	6	...	1	1	...	...	...	...	...	...	...	...	...	...	27	1.3	1.9
IX. SUFFOCATION, ...	1	2	...	...	3	6	3	3	3	...	...	1	...	...	...	...	...	...	...	...	...	19	0.9	1.3
X. OTHER VIOLENCE, ...	...	...	...	...	...	1	...	1	1	...	1	1	1	...	1	...	...	...	...	...	...	6	0.3	0.4
XI. ALL OTHER CAUSES, ...	19	3	6	3	31	11	5	10	1	2	2	5	2	3	6	3	...	81	3.9	5.5				
	444	80	97	86	707	181	183	167	100	92	111	105	108	102	115	114	...	2,085						1430

TABLE XIX.  
GLASGOW, 1913.—FEMALE. INFANT DEATHS at GIVEN AGES and from SEVERAL CAUSES.

CAUSE OF DEATH.	AGE IN WEEKS.				Total 4 Weeks	AGE IN MONTHS.												Total 1 Year.	Group Totals.	Group Percent- ages.	Death-rate per 1,000 Female Births.
	AGE IN WEEKS.					AGE IN MONTHS.															
	-1	-2	-3	-4		-2	-3	-4	-5	-6	-7	-8	-9	-10	-11	-12					
I. IMMATUREITY, (a) Premature Birth, ... (b) Congenital Malformations, ... (c) Atelectasis, ... (d) Atrophy and Debility, ...	184 19 6 37	28 10 2 21	20 4 1 25	12 2 1 13	244 35 10 96	12 3 1 30	8 ... 2 17	2 4 ... 14	... 4 10 16	... ... 4 18	... ... 5 18	... 1 ... 22	... ... 2 23	... 1 ... 21	... 2 ... 22	... ... 1 29	520	32.6	36.8		
II. DISEASES OF RESPIRATORY SYSTEM,	2	10	11	19	42	22	26	35	16	18	22	22	23	21	22	29	294	18.4	20.8		
III. DISEASES OF DIGESTIVE SYSTEM, (a) Diarrhoeal, ... (b) Dentition, ... (c) Others, ...	... ... 1 1	... ... 1 1	... ... 2 2	... 10 ... 2	... 15 ... 6	... 23 ... 5	... 26 ... 2	... 36 ... 5	... 27 ... 3	... 15 ... 3	... 22 ... 3	... 16 ... 5	... 19 ... ...	... 14 ... 3	... 15 ... 2	... 16 ... 3	244	17.8	20.1		
IV. DISEASES OF NERVOUS SYSTEM, ...	15	7	2	3	27	12	3	4	8	7	8	3	7	8	11	6	104	6.5	7.4		
V. TUBERCULOUS DISEASES, (a) Abdominal Tuberculosis, (b) Tubercular Meningitis, (c) Other Forms, ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... ... ...	... ... 2 1	... 1 1 1	... 1 1 1	... 1 1 ...	... ... 2 1	... 1 6 1	... 4 2 ...	... 3 4 2	... 1 ... 2	... 6 1 1	... 7 ... 2	56	3.5	4.0		
VI. ACCIDENTS OF BIRTH, (a) Injury, ... (b) Umbilical Hæmorrhage, ...	... 11 ...	... 1 ...	... ... ...	... ... ...	... 12 ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	... ... ...	12	0.8	0.8		
VII. INFECTIOUS DISEASES, (a) Whooping-cough, (b) Measles, ... (c) Scarlet Fever, (d) Cerebro-Spinal Fever, (e) Erysipelas, ... (f) Diphtheria and Memb. Croup, (g) Chicken-pox, ...	... ... ... ... ... ... ...	... ... ... ... ... ... ...	... ... ... ... ... ... ...	... 1 1 ... 1 ... ...	... 3 1 ... ... 1 ...	... 8 1 ... 2 1 ...	... 9 ... ... ... ... ...	... 14 ... ... ... ... ...	... 7 ... ... ... ... ...	... 11 4 ... ... ... ...	... 13 1 ... ... ... ...	... 14 6 ... ... ... ...	... 22 4 ... ... ... ...	... 16 7 1 ... ... ...	... 22 12 1 ... ... ...	... 19 12 ... ... ... ...	224	14.0	15.9		
VIII. SYPHILIS, ...	2	1	...	...	3	5	1	4	2	2	...	1	...	...	...	...	18	1.1	1.3		
IX. SUFFOCATION, ...	2	...	...	1	3	5	2	1	...	1	...	...	...	...	...	...	12	0.8	0.8		
X. OTHER VIOLENCE,...	3	...	...	...	3	1	2	3	1	...	...	1	...	...	...	2	13	0.8	0.9		
XI. ALL OTHER CAUSES, ...	13	3	4	...	20	7	6	3	5	2	2	5	2	2	2	3	59	3.7	4.2		
	295	85	76	65	521	141	107	128	85	71	84	86	88	80	100	105	1,596		113.0		



MUNICIPAL WARD.	Total Number of Notifications.	Dr. at Home.	Dr. in Institution.	Institutional Nurse.	Others.	Total Cards issued.	Total Cards returned.	Full Information.	Dr. found in attendance.	Duplicates.	Wrong Address.	Others.
1. Dalmarnock, ...	1,944	593	69	96	1,186	1,351	1,347	1,287	5	3	9	43
2. Calton, ...	1,092	246	53	215	578	846	847	820	3	1	7	16
3. Mile-end, ...	1,800	513	73	178	1,036	1,287	1,273	1,234	...	2	9	28
4. Whitevale, ...	1,052	344	46	137	525	708	721	708	...	1	9	3
5. Dennistoun, ...	1,013	778	75	54	106	235	236	174	...	...	...	62
6. Springburn, ...	1,786	808	122	182	674	978	1,007	886	9	3	7	102
7. Cowlaers, ...	954	394	28	28	504	560	564	523	21	...	5	15
8. Townhead, ...	971	395	48	232	296	576	585	561	...	...	8	16
9. Blackfriars, ...	641	151	64	210	216	490	489	463	...	1	6	19
10. Exchange, ...	36	10	4	15	7	26	26	23	...	...	1	2
11. Blythswood, ...	26	16	3	1	6	10	10	8	...	...	1	1
12. Broomielaw, ...	175	34	10	70	61	141	137	131	...	1	1	3
13. Anderston, ...	900	344	26	142	388	556	555	533	6	...	1	15
14. Sandyford, ...	562	204	14	132	212	358	349	334	2	...	1	9
15. Park, ...	287	155	67	12	53	132	131	60	3	...	3	68
16. Cowcaddens, ...	1,049	219	49	264	517	830	837	807	5	...	10	15
17. Woodside, ...	1,155	547	82	111	415	608	603	519	10	...	3	69
18. Hutchesontown, ...	1,406	444	45	134	783	962	963	897	9	2	10	45
19. Gorbals, ...	881	341	36	116	388	540	543	520	7	1	3	12
20. Kingston, ...	886	334	33	111	408	552	553	531	6	2	4	10
21. Govanhill, ...	1,118	741	21	39	317	377	382	349	16	...	3	14
22. Langside, ...	811	785	10	...	16	26	26	11	7	...	1	7
23. Pollokshields, ...	196	176	4	...	16	20	20	14	...	...	...	6
24. Kelvinside, ...	288	277	3	...	8	11	11	7	2	...	...	2
25. Maryhill, ...	1,318	692	19	14	593	626	615	579	17	...	3	16
26. Kinning Park, ...	465	148	17	55	245	317	317	300	7	1	...	9
Old City, ...	22,812	9,689	1,021	2,548	9,554	13,123	13,147	12,279	136	21	104	607
27. Plantation, ...	871	419	20	46	386	452	448	424	7	...	5	12
28. Ibrox, ...	650	264	12	84	290	386	383	362	7	1	3	10
29. Govan (Central), ...	844	324	12	118	390	520	524	497	14	1	3	9
30. Fairfield, ...	768	488	62	55	163	280	280	212	9	...	5	54
31. Partick (East), ...	506	296	11	20	179	210	208	197	4	1	1	5
32. Partick (Central), ...	908	549	18	22	319	359	365	338	12	1	4	10
33. Partick (West), ...	641	455	11	2	173	186	190	172	13	...	...	5
34. Jordanhill, ...	353	312	1	...	40	41	44	41	2	...	...	1
35. Pollokshaws, ...	395	323	1	...	71	72	71	63	6	...	...	2
36. Cathcart, ...	337	325	3	...	9	12	12	7	3	...	...	2
37. Tollcross and Shettleston, ...	949	576	6	...	367	373	380	370	1	1	5	3
Added Area, ...	7,222	4,331	157	317	2,387	2,891	2,905	2,683	78	5	26	113
Extended City, ...	30,034	14,020	1,178	2,895	11,941	16,014	16,052	14,962	214	26	130	720

TABLE XXI.

GLASGOW, 1913.—TABLE SHOWING THE NUMBER OF LIVE AND STILL-BIRTHS NOTIFIED AND THE NUMBERS AND PERCENTAGES ATTENDED MEDICALLY AND NON-MEDICALLY IN EACH WARD.

MUNICIPAL WARDS.	NOTIFICATIONS RECEIVED.			Births Medically Attended.	Medically Attended in Institutions.	Total Births Medically Attended.	Attended by Nurses from Institutions.	Attended by Midwives—Certified and Uncertified.	Total Births not Medically Attended.	Percentage Medically Attended.	Percentage not Medically Attended.
	Total.	Live-Births.	Still-Births.								
1. Dalmarnock, ...	1,941	1,855	86	598	69	667	96	1,178	1,274	34.4	65.6
2. Calton, ...	1,091	1,035	56	249	53	302	215	574	789	27.7	72.3
3. Mile-end, ...	1,798	1,711	87	513	73	586	178	1,034	1,212	32.6	67.4
4. Whitevale, ...	1,051	1,001	50	344	46	390	137	524	661	37.1	62.9
5. Dennistoun, ...	1,013	966	47	778	75	853	54	106	160	84.2	15.8
6. Springburn, ...	1,783	1,698	85	817	122	939	182	662	844	52.7	47.3
7. Cowlares, ...	954	919	35	415	28	443	28	483	511	46.4	53.6
8. Townhead, ...	971	936	35	395	48	443	232	296	528	45.6	54.4
9. Blackfriars, ...	640	606	34	151	64	215	210	215	425	33.6	66.4
10. Exchange, ...	36	34	2	10	4	14	15	7	22	38.9	61.1
11. Blythswood, ...	26	26	...	16	3	19	1	6	7	73.1	26.9
12. Broomielaw, ...	174	171	3	35	10	45	70	59	129	25.9	74.1
13. Anderston, ..	900	866	34	350	26	376	142	382	524	41.8	58.2
14. Sandyford, ...	561	538	23	206	14	220	132	209	341	39.2	60.8
15. Park, ...	287	274	13	158	67	225	12	50	62	78.4	21.6
16. Cowcaddens, ...	1,049	999	50	224	49	273	264	512	776	26.0	74.0
17. Woodside, ...	1,153	1,095	58	557	82	639	111	403	514	55.4	44.6
18. Hutchesontown, ...	1,404	1,345	59	453	45	498	134	772	906	35.5	64.5
19. Gorbals, ...	880	854	26	348	36	384	116	380	496	43.6	56.4
20. Kingston, ...	884	839	45	340	33	373	111	400	511	42.2	57.8
21. Govanhill, ...	1,118	1,078	40	757	21	778	39	301	340	69.6	30.4
22. Langside, ...	811	786	25	792	10	802	...	9	9	88.9	11.1
23. Pollokshields, ...	196	192	4	176	4	180	...	16	16	91.8	8.2
24. Kelvinside, ...	288	283	5	279	3	282	...	6	6	97.9	2.1
25. Maryhill, ...	1,318	1,261	57	709	19	728	14	576	590	55.2	44.8
26. Kinning Park, ...	464	442	22	155	17	172	55	237	292	37.1	62.9
Old City, ...	22,791	21,810	981	9,825	1,021	10,846	2,548	9,397	11,945	47.6	52.4
27. Plantation, ...	871	833	38	426	20	446	46	379	425	51.2	48.8
28. Ibrox, ...	649	628	21	271	12	283	84	282	366	43.6	56.4
29. Govan (Central), ...	843	811	32	338	12	350	118	375	493	41.5	58.5
30. Fairfield, ...	768	740	28	497	62	559	55	154	209	72.8	27.2
31. Partick (East), ...	505	485	20	300	11	311	20	174	194	61.6	38.4
32. „ (Central), ...	907	870	37	561	18	579	22	306	328	63.8	36.2
33. „ (West), ...	641	605	36	468	11	479	2	160	162	74.7	25.3
34. Jordanhill, ...	353	342	11	314	1	315	...	38	38	89.2	10.8
35. Pollokshaws, ...	395	381	14	329	1	330	...	65	65	83.5	16.5
36. Cathcart, ...	337	322	15	328	3	331	...	6	6	98.2	1.8
37. Tollcross and Shettleston, ...	948	915	33	577	6	583	...	365	365	61.5	38.5
Added Area, ...	7,217	6,932	285	4,409	157	4,566	347	2,304	2,651	63.3	36.7
Greater Glasgow, ...	30,008	28,742	1,266	14,234	1,178	15,412	2,895	11,701	14,596	51.4	48.6

TABLE XXII.

GLASGOW. 1913.—TABLE SHOWING NUMBER OF LIVE-BIRTHS AND STILL-BIRTHS NOTIFIED, WITH PROPORTIONS MEDICALLY AND NON-MEDICALLY ATTENDED IN EACH WARD.

MUNICIPAL WARDS.	Number of Live-Births Notified.	Number of Still-Births Notified.	Per-centage Still-Births to Live-Births Notified.	Live-Births Medically Attended, but excluding Institutions.	Still-Births Medically Attended, but excluding Institutions.	Per-centage Still-Births to Live-Births Medically Attended.	Live-Births Non-Medically Attended.	Still-Births Non-Medically Attended.	Per-centage Still-Births to Live-Births Non-Medically Attended.
1. Dalmarnock, ...	1,855	86	4·6	571	27	4·7	1,233	41	3·3
2. Calton, ...	1,035	56	5·4	229	20	8·7	765	24	3·1
3. Mile-end, ...	1,711	87	5·1	485	28	5·8	1,167	45	3·9
4. Whitevale, ...	1,001	50	6·0	321	23	7·2	646	15	2·3
5. Dennistoun, ...	966	47	4·9	751	27	3·6	155	5	3·2
6. Springburn, ...	1,698	85	5·0	787	30	3·8	808	36	4·5
7. Cowlairs, ...	919	35	3·8	403	12	3·0	495	16	3·2
8. Townhead, ...	936	35	3·7	379	16	4·2	516	12	2·3
9. Blackfriars, ...	606	34	5·6	145	6	4·1	406	19	4·7
10. Exchange, ...	34	12	35·2	10	...	...	21	1	4·8
11. Blythswood, ...	26	...	...	16	...	...	7	...	...
12. Broomielaw, ...	171	3	1·8	33	2	6·1	128	1	0·8
13. Anderston, ...	866	34	3·9	337	13	3·9	505	19	3·8
14. Sandyford, ...	538	23	4·3	196	10	5·1	330	11	3·3
15. Park, ...	274	13	4·7	152	6	3·9	61	1	1·6
16. Cowcaddens, ...	999	50	5·0	213	11	5·2	741	35	4·7
17. Woodside, ...	1,095	58	5·3	528	29	5·5	495	19	3·8
18. Hutchesontown, ...	1,345	59	4·4	432	21	4·9	876	30	3·4
19. Gorbals, ...	854	26	3·0	344	4	1·2	483	13	2·7
20. Kingston, ...	839	45	5·4	325	15	4·6	489	22	4·5
21. Govanhill, ...	1,078	40	3·7	733	24	3·3	331	9	2·7
22. Langside, ...	786	25	3·2	769	23	3·0	9	...	...
23. Pollokshields, ...	192	4	2·1	172	4	2·3	16	...	...
24. Kelvinside, ...	283	5	1·8	275	4	1·5	6	...	...
25. Maryhill, ...	1,261	57	4·5	678	31	4·6	567	23	4·1
26. Kinning Park, ...	442	22	5·0	146	9	6·2	283	9	3·2
Old City, ...	21,810	981	4·5	9,430	395	4·2	11,539	406	3·5
27. Plantation, ...	833	38	4·6	412	14	3·4	406	19	4·7
28. Ibrox, ...	628	21	3·3	257	14	5·4	360	6	1·7
29. Govan (Central), ...	811	32	3·9	323	15	4·6	478	15	3·1
30. Fairfield, ...	740	28	3·8	483	14	2·9	205	4	2·0
31. Partick (East), ...	485	20	4·1	284	16	5·6	190	4	2·1
32. „ (Central), ...	870	37	4·3	535	26	4·9	320	8	2·5
33. „ (West), ...	605	36	6·0	443	25	5·6	156	6	3·8
34. Jordanhill, ...	342	11	3·2	305	9	3·0	37	1	2·7
35. Pollokshaws, ...	381	14	3·7	316	13	4·1	64	1	1·6
36. Cathcart, ...	322	15	4·7	313	15	4·8	6	...	...
37. Shettleston and Tollcross, ...	915	33	3·6	553	24	4·3	356	9	2·5
Added Area, ...	6,932	285	4·0	4,224	185	4·4	2,578	73	2·8
Greater Glasgow, ...	28,742	1,266	4·4	13,654	580	4·2	14,117	479	3·4



TABLE XXIII.

GLASGOW, 1913.—CASES of CERTAIN ZYMOTICS, PHTHISIS, and ALL CASES registered in each MUNICIPAL WARD.

MUNICIPAL WARDS.	FEVERS.						Smallpox.	Diphtheria and Membranous Croup.	Phthisis.	All other Cases.	TOTAL.
	Cerebro-Spinal.	Typhus.	Enteric.	Continued and Undefined.	Puerperal.	Scarlet.					
1. Dalmarnock, ...	5	...	24	...	11	164	...	97	98	1,810	2,219
2. Calton, ...	...	9	10	...	1	129	...	42	131	1,047	1,369
3. Mile-end, ...	3	3	9	...	5	194	...	72	134	1,697	2,117
4. Whitevale, ...	4	...	9	...	7	130	...	64	82	823	1,119
5. Dennistoun, ...	...	...	4	2	1	153	...	47	71	833	1,111
6. Springburn, ...	...	...	12	...	7	210	...	99	95	1,578	2,001
7. Cowlares, ...	...	2	11	...	4	192	...	116	66	887	1,278
8. Townhead, ...	...	2	10	...	7	130	...	49	95	757	1,050
9. Blackfriars, ...	1	...	18	...	3	53	...	41	59	438	613
10. Exchange, ...	...	...	1	...	1	10	...	3	6	20	41
11. Blythswood, ...	...	...	...	...	...	8	...	6	2	15	31
12. Broomielaw, ...	1	...	...	...	2	28	...	13	18	127	189
13. Anderston, ...	1	...	5	1	5	142	...	40	80	849	1,123
14. Sandyford, ...	...	10	4	2	2	109	...	23	64	632	846
15. Park, ...	...	...	5	1	1	75	...	82	36	240	440
16. Cowcaddens, ...	...	1	14	...	4	182	...	57	109	1,179	1,546
17. Woodside, ...	...	2	12	...	6	200	...	148	84	1,419	1,871
18. Hutchesontown, ...	4	...	5	...	10	135	...	44	92	1,056	1,346
19. Gorbals, ...	...	1	4	...	7	119	...	54	109	700	994
20. Kingston, ...	1	...	7	...	6	97	...	53	96	1,241	1,501
21. Govanhill, ...	...	...	4	...	5	147	...	62	62	984	1,264
22. Langside, ...	...	...	5	...	2	212	...	67	65	972	1,323
23. Pollokshields, ...	...	...	7	...	2	34	...	13	20	95	171
24. Kelvinside, ...	...	...	1	...	1	60	...	47	33	204	346
25. Maryhill, ...	...	...	9	...	13	229	...	93	75	1,195	1,614
26. Kinning Park, ...	2	6	5	...	3	28	...	13	42	454	553
— Institutions, ...	...	...	...	...	...	...	...	...	197	...	197
— Harbour, ...	...	...	...	...	...	...	...	...	...	...	...
Old City, ...	22	36	195	6	116	3,170	...	1,445	2,021	21,252	28,273
27. Plantation, ...	1	...	9	1	7	60	...	44	84	501	707
28. Ibrox, ...	1	3	1	...	1	62	...	34	39	398	529
29. Govan (Central), ...	4	...	2	...	3	61	...	43	54	834	1,001
30. Fairfield, ...	1	1	6	...	3	82	...	29	36	588	746
31. Partick (East), ...	...	...	2	...	3	83	...	32	46	437	603
32. „ (Central), ...	1	...	5	...	3	113	...	60	58	925	1,165
33. „ (West), ...	3	...	4	...	3	95	...	31	31	604	771
34. Jordanhill, ...	1	...	1	...	1	114	...	58	18	413	606
35. Pollokshaws, ...	1	...	2	...	3	35	...	83	22	232	378
36. Cathcart, ...	...	...	...	...	...	46	...	53	23	425	547
37. Shettleston and Tollcross, ...	1	...	12	...	6	213	...	84	57	484	857
— Institutions, ...	...	...	...	...	...	...	...	...	45	...	45
Added Area, ...	14	4	44	1	33	964	...	551	513	5,841	7,955
Greater City, ...	36	40	239	7	149	4,134	...	1,996	2,634	37,093	36,228

\* Erysipelas, Measles, Whooping-cough, Chickenpox, Beri-Beri, Trachoma, British Cholera, Dysentery, Anthrax, Mumps, and Ophthalmia Neonatorum.

NOTE.—Cases occurring in Institutions are allocated to the respective Wards, except for Phthisis.

TABLE XXIV.

GLASGOW, 1913.—CASE-RATE per Million for CERTAIN ZYMOTICS, PHTHISIS, and for ALL CASES registered in each MUNICIPAL WARD.

MUNICIPAL WARDS.	FEVERS.						Smallpox.	Diphtheria and Membranous Group.	Phthisis.	All other Cases.	TOTAL.
	Cerebro-Spinal.	Typhus.	Enteric.	Continued and Undefined.	Puerperal.	Scarlet.					
1. Dalmarnock, ...	95	...	457	...	209	3,123	119 ... 70	1,847	1,895	34,472	42,098
2. Calton, ...	...	246	273	...	27	3,519	162 ... 53	1,146	3,794	28,564	37,569
3. Mile-end, ...	64	64	191	...	106	4,126	182 ... 56	1,531	2,879	36,093	45,054
4. Whitevale, ...	121	...	272	...	212	3,934	170 ... 84	1,937	2,586	24,902	33,964
5. Dennistoun, ...	...	...	98	49	25	3,750	181 ... 53	1,152	1,847	20,415	27,336
6. Springburn, ...	...	...	244	...	142	4,267	157 ... 70	2,012	2,103	32,067	40,835
7. Cowlands, ...	...	66	364	...	132	6,352	252 ... 152	3,838	2,186	29,344	42,282
8. Townhead, ...	...	56	282	...	197	3,664	171 ... 64	1,381	2,686	21,335	29,601
9. Blackfriars, ...	49	...	882	...	147	2,598	142 ... 85	2,010	3,048	21,467	30,201
10. Exchange, ...	...	...	509	...	509	5,089	374 ... 112	1,527	4,161	10,178	21,973
11. Blythswood, ...	...	...	...	...	...	2,852	162 ... 272	2,139	846	5,348	11,185
12. Broomielaw, ...	128	...	...	...	256	3,591	177 ... 80	1,667	2,990	16,286	24,918
13. Anderston, ...	34	...	170	34	170	4,816	216 ... 59	1,357	2,852	28,795	38,228
14. Sandyford, ...	...	422	169	84	84	4,597	258 ... 51	970	2,751	26,657	35,734
15. Park, ...	...	...	216	43	43	3,242	344 ... 143	3,545	1,621	10,375	19,085
16. Cowcaddens, ...	...	29	405	...	116	5,264	242 ... 76	1,649	3,277	34,099	44,839
17. Woodside, ...	...	48	290	...	145	4,832	274 ... 146	3,576	2,038	34,282	45,211
18. Hutchesontown, ...	102	...	128	...	255	3,446	131 ... 42	1,123	2,348	26,955	34,357
19. Gorbals, ...	...	29	118	...	206	3,502	165 ... 95	1,589	3,293	20,599	29,336
20. Kingston, ...	30	...	210	...	180	2,914	142 ... 78	1,592	2,974	37,278	45,178
21. Govanhill, ...	...	...	108	...	135	3,957	149 ... 70	1,669	1,670	26,488	34,027
22. Langside, ...	...	...	118	...	47	4,995	283 ... 90	1,579	1,554	22,902	31,195
23. Pollokshields, ...	...	...	385	...	110	1,871	177 ... 68	715	1,100	5,227	9,408
24. Kelvinside, ...	...	...	44	...	44	2,616	250 ... 196	2,049	1,497	8,895	15,145
25. Maryhill, ...	...	...	212	...	306	5,391	211 ... 82	2,189	1,853	28,134	38,085
26. Kinning Park, ...	157	470	392	...	235	2,193	86 ... 39	1,018	3,290	35,560	43,315
Old City, ...	28	45	246	8	146	3,999	...	1,823	2,550	26,813	35,658
27. Plantation, ...	34	...	268	34	235	2,012	...	1,476	2,924	16,803	23,786
28. Ibrox, ...	48	144	48	...	48	2,975	...	1,631	1,912	19,096	25,902
29. Govan (Central), ...	175	...	88	...	131	2,671	...	1,883	2,364	36,515	43,827
30. Fairfield, ...	43	43	259	...	130	3,544	...	1,253	1,698	25,413	32,383
31. Partick (East), ...	...	...	88	...	132	3,641	...	1,404	2,036	19,168	26,469
32. " (Central), ...	36	...	181	...	108	4,084	...	2,169	2,097	33,435	42,110
33. " (West), ...	136	...	182	...	136	4,318	...	1,409	1,433	27,451	35,065
34. Jordanhill, ...	69	...	69	...	69	7,902	...	4,020	1,258	28,627	42,014
35. Pollokshaws, ...	73	...	147	...	220	2,570	...	6,094	1,615	17,033	27,752
36. Cathcart, ...	...	...	...	...	...	3,146	...	3,625	1,573	29,070	37,414
37. Shettleston and Tollcross, ...	36	...	431	...	215	7,648	...	3,016	2,092	17,379	30,817
Added Area, ...	58	17	181	4	138	4,023	...	2,299	2,141	24,376	33,237
Greater Glasgow, ...	35	39	232	7	144	4,005	...	1,934	2,552	26,247	35,195

\* Erysipelas, Measles, Whooping-cough, Chickenpox, Beri-Beri, Plague, Mumps, and Ophthalmia Neonatorum.

NOTE.—The populations on which these rates are based include Institutions and Shipping, except for Phthisis.

TABLE XXV.—GLASGOW.—CASES of INFECTIOUS DISEASE in each MUNICIPAL

INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.																						
MUNICIPAL WARDS.	FEVERS.								Smallpox.	Scarlet Fever.	Cerebro- Spinal Fever.	Diphtheria and Mem- branous Croup.	Erysipelas.	Phthisis.	Ophthalmia Neonatorum							
	Typhus.		Enteric.		Continued and Undefined.		Puerperal.															
	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.														
1. Dalmarnock, ...	...	...	24	...	...	...	9	2	...	...	148	1	1	4	88	3	22	52	6	94	9	22
2. Calton, ...	8	...	10	...	...	...	1	...	...	...	123	4	...	...	38	3	27	40	41	123	5	13
3. Mile-end, ...	3	...	9	...	...	...	4	1	...	...	189	2	1	2	68	4	28	44	7	130	4	28
4. Whitevale, ...	...	...	9	...	...	...	5	2	...	...	129	1	...	4	62	2	3	34	15	77	3	16
5. Dennistoun, ...	...	...	4	...	...	1	...	1	...	...	128	17	...	...	35	12	6	28	24	66	1	8
6. Springburn, ...	...	...	11	1	...	...	6	1	...	...	187	3	...	...	88	5	27	49	23	91	6	7
7. Cowlares, ...	2	...	11	...	...	...	4	...	...	...	189	2	...	...	114	1	8	18	4	64	2	5
8. Townhead, ...	2	...	9	1	...	...	7	...	...	...	128	2	...	...	46	3	11	30	4	90	1	12
9. Blackfriars, ...	...	...	18	...	...	...	2	...	...	...	53	...	...	1	37	1	21	21	21	59	6	8
10. Exchange, ...	...	...	1	...	...	...	1	...	...	...	10	...	...	...	3	...	2	1	1	6	...	1
11. Blythswood, ...	...	...	...	...	...	...	...	...	...	...	7	1	...	...	6	...	1	3	2	1	...	...
12. Broomielaw, ...	...	...	...	...	...	...	1	1	...	...	28	...	1	...	12	1	2	8	13	16	...	2
13. Anderston, ...	...	...	1	...	1	...	5	...	...	...	137	3	1	...	39	...	7	39	8	73	3	7
14. Sandyford, ...	10	...	4	...	2	...	2	...	...	...	101	8	...	...	21	2	11	23	6	63	2	5
15. Park, ...	...	...	2	2	1	...	1	...	...	...	55	5	...	...	35	9	3	24	5	33	4	...
16. Cowcaddens, ...	1	...	13	...	...	...	4	...	...	...	181	...	...	...	54	2	11	25	20	107	9	11
17. Woodside, ...	2	...	11	1	...	...	6	...	...	...	192	7	...	...	147	1	17	30	5	77	6	6
18. Hutchesontown, ...	...	...	5	...	...	...	9	1	...	...	135	...	4	...	41	2	20	61	3	88	6	12
19. Gorbals, ...	1	...	4	...	...	...	7	...	...	...	117	1	...	...	50	4	20	44	22	107	4	14
20. Kingston, ...	...	...	7	...	...	...	4	2	...	...	95	2	...	1	50	3	15	38	11	99	5	20
21. Govanhill, ...	...	...	4	...	...	...	4	1	...	...	142	5	...	...	47	15	8	34	6	60	2	9
22. Langside, ...	...	...	3	1	...	...	2	...	...	...	165	42	...	...	42	24	3	26	3	60	...	1
23. Pollokshields, ...	...	...	2	5	...	...	1	1	...	...	19	15	...	...	4	9	1	14	...	22	1	...
24. Kelvinside, ...	...	...	...	1	...	...	...	1	...	...	40	20	...	...	27	15	...	8	1	31	...	...
25. Maryhill, ...	...	...	7	1	...	...	13	...	...	...	203	8	...	...	76	6	10	31	3	73	2	10
26. Kinning Park, ...	6	...	5	...	...	...	3	...	...	...	28	...	1	1	12	1	14	21	1	40	...	3
— Institutions, ...	2	...	4	...	1	...	1	...	...	...	90	...	...	...	74	...	50	6	...	...	...	...
— Harbour, ...	...	...	8	...	1	...	...	...	...	...	5	...	...	...	2	...	1	...	...	...	...	...
Old City, ...	37	...	186	13	6	1	102	14	...	...	3,024	149	9	13	1,318	128	349	752	255	1,750	81	220
27. Plantation, ...	...	...	5	...	...	...	7	...	...	...	51	6	...	1	40	3	17	26	13	85	1	14
28. Ibrox, ...	3	...	1	...	...	...	1	...	...	...	55	6	...	1	31	3	19	18	2	38	2	13
29. Govan (Central), ...	...	...	2	...	...	...	2	1	...	...	60	1	1	3	40	3	18	19	1	52	1	5
30. Fairfield, ...	...	...	3	...	...	...	2	...	...	...	72	3	...	1	28	1	12	11	31	38	...	5
31. Partick (East), ...	...	...	1	1	...	...	2	1	...	...	76	6	...	...	28	4	9	12	4	48	1	3
32. „ (Central), ...	...	...	4	1	...	...	2	1	...	...	109	4	...	1	54	6	6	16	3	55	...	5
33. „ (West), ...	...	...	3	1	...	...	2	1	...	...	87	8	2	1	27	4	1	18	2	29	1	1
34. Jordanhill, ...	...	...	1	...	...	...	...	1	...	...	97	16	...	1	51	6	...	14	...	19	...	4
35. Pollokshaws, ...	...	...	2	...	...	...	2	1	...	...	33	2	1	...	78	5	4	9	...	25	...	...
36. Cathcart, ...	...	...	...	...	...	...	...	...	...	...	40	6	...	...	44	9	1	8	...	23	...	...
37. Tollcross and Shettleston, ...	...	...	11	1	...	...	6	...	...	...	207	6	1	...	71	13	5	30	3	58	1	7
— Institutions, ...	...	...	3	...	...	...	1	...	...	...	10	...	...	...	1	...	29	...	...	...	...	...
— Harbour, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whole City, ...	40	...	222	17	6	1	129	20	...	...	3,921	213	14	22	1,811	185	470	933	314	2,220	88	277



## WARD, showing those TREATED in HOSPITAL, for the YEAR 1913.

OTHER INFECTIOUS DISEASES.								ALL CAUSES.			TOTAL CASES.		TOTAL VISITATIONS.		MUNICIPAL WARDS.	
Measles.		Whooping-cough.		Chickenpox.		Others.										
Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.			For Infectious Diseases.	Cases found.			
161	1007	53	348	...	133	...	...	521	1,666	2,187	11,888	1		Dalmarnock, ...	1.	
104	455	68	243	3	66	...	...	428	947	1,375	9,028	24		Calton, ...	2.	
114	771	86	327	10	283	...	...	523	1,592	2,115	14,572	6		Mile-end, ...	3.	
62	359	45	229	2	87	...	...	335	811	1,146	6,155	13		Whitevale, ...	4.	
24	462	14	214	2	35	...	...	238	844	1,082	5,414	37		Dennistoun, ...	5.	
22	421	21	389	...	408	...	...	391	1,375	1,766	10,512	15		Springburn, ...	6.	
13	303	20	391	...	126	...	...	367	910	1,277	6,701	1		Cowlairs, ...	7.	
55	319	21	231	2	75	...	...	286	763	1,049	7,543	18		Townhead, ...	8.	
61	171	21	94	3	26	...	...	243	381	624	5,977	14		Blackfriars, ...	9.	
3	9	1	...	...	...	...	...	22	17	39	257	...		Exchange, ...	10.	
3	4	...	3	...	1	...	...	19	13	32	174	...		Blythswood, ...	11.	
15	40	9	50	...	3	...	...	81	121	202	2,249	7		Broomielaw, ...	12.	
17	239	14	368	...	136	...	...	233	865	1,098	8,146	90		Anderston, ...	13.	
37	218	26	247	...	61	...	...	222	627	849	11,865	10		Sandyford, ...	14.	
23	88	6	46	...	13	...	...	135	220	355	2,019	1		Park, ...	15.	
77	454	76	389	...	116	...	...	446	1,104	1,550	11,242	5		Cowcaddens, ...	16.	
52	643	34	489	6	134	...	...	478	1,388	1,866	8,487	24		Woodside, ...	17.	
75	446	60	266	5	129	...	...	363	1,005	1,368	9,756	6		Hutchesontown, ...	18.	
47	286	20	182	2	75	...	...	294	713	1,007	6,921	25		Gorbals, ...	19.	
38	623	20	297	3	176	...	...	248	1,261	1,509	7,715	5		Kingston, ...	20.	
42	564	14	243	4	70	...	...	273	1,001	1,274	6,862	5		Govanhill, ...	21.	
14	618	1	194	...	90	...	...	233	1,056	1,289	6,371	...		Langside, ...	22.	
9	53	...	4	2	12	...	...	39	135	174	1,062	...		Pollokshields, ...	23.	
37	107	...	14	1	23	...	...	106	220	326	2,795	27		Kelvinside, ...	24.	
52	661	16	235	1	128	...	...	383	1,153	1,536	12,320	51		Maryhill, ...	25.	
18	252	10	107	...	19	...	...	98	444	542	8,201	...		Kinning Park, ...	26.	
237	5	75	...	30	2	1	...	565	13	578	578	...		Institutions, ...	—	
24	...	3	...	8	1	...	...	52	1	53	1,943	...		Harbour, ...	—	
1,436	9,578	734	5,600	84	2,428	1	...	7,622	20,646	28,271	186,753	385		Old City.		
39	307	8	63	1	3	...	...	182	508	690	5,302	1		Plantation, ...	27.	
22	228	6	55	...	39	1	...	143	401	544	4,525	3		Ibrox, ...	28.	
34	567	8	156	2	34	...	...	169	841	1,010	6,485	1		Govan (Central), ...	29.	
16	345	1	115	3	42	...	...	168	561	729	4,498	5		Fairfield, ...	30.	
23	214	8	102	2	54	...	...	154	445	599	4,114	7		Partick (East), ...	31.	
36	606	4	127	...	128	...	...	218	950	1,168	6,033	24		„ (Central), ...	32.	
7	344	1	162	...	65	...	...	133	634	767	4,248	77		„ (West), ...	33.	
4	292	1	99	...	3	...	...	154	455	609	3,319	...		Jordanhill, ...	34.	
1	191	...	22	...	6	...	...	121	261	382	3,223	12		Pollokshaws, ...	35.	
4	248	...	125	...	30	...	...	89	449	538	2,332	11		Cathcart, ...	36.	
16	364	5	41	...	14	...	...	326	534	860	6,384	7		{ Tollcross and		
13	...	4	...	3	...	...	...	64	...	64	64	...		{ Shettleston, ...	37.	
...	...	...	...	...	...	...	...	...	...	...	...	...		Institutions, ...	—	
...	...	...	...	...	...	...	...	...	...	...	...	...		Harbour, ...	—	
1,651	13,284	780	6,667	95	2,846	2	...	9,543	26,685	36,228	237,280	533		Whole City.		

TABLE XXVI.—GLASGOW.—CASES of INFECTIOUS DISEASE REGISTERED, showing the NUMBER TREATED in HOSPITAL for each MONTH of the YEAR 1913

MONTHS.	INFECTIOUS DISEASE (NOTIFICATION) ACT, 1889.																OTHER INFECTIOUS DISEASES.										TOTAL.									
	FEBRILE.																Measles.												Whooping-cough.		Chickenpox.		Others.			
																																			Typhus.	
Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	Hosp.	Home.	
Jan.,	...	18	2	...	1	10	3	...	...	267	23	3	5	151	20	36	85	42	254	6	26	...	...	...	100	773	171	1748	14	293	1	...	...	...	819	3,233
Feb.,	...	14	1	...	...	12	1	...	...	215	23	...	2	109	23	33	88	40	231	11	17	...	...	...	105	758	117	1395	12	255	...	...	...	668	2,794	
March,	10	...	22	1	...	...	2	...	...	214	15	...	4	152	19	31	78	27	236	9	25	...	...	...	123	948	101	937	7	155	...	...	...	711	2,420	
April,	...	...	16	1	...	...	2	...	...	252	12	1	1	123	12	46	66	17	201	8	17	...	...	...	180	1762	105	1125	10	237	...	...	...	768	3,436	
May,	...	...	17	...	...	...	4	...	...	258	16	...	2	95	8	35	66	32	235	10	18	...	...	...	224	2142	90	501	4	270	...	...	...	777	3,262	
June,	...	...	12	4	...	...	7	...	...	220	17	...	1	119	15	22	49	24	133	6	17	...	...	...	224	1601	66	303	6	241	1	...	...	707	2,381	
July,	13	...	29	1	...	...	14	...	...	214	18	3	1	99	14	36	54	14	158	9	16	...	...	...	210	1159	46	81	3	42	...	...	...	690	1,544	
Aug.,	14	...	16	1	3	...	5	2	...	282	7	3	...	151	10	35	63	20	161	4	30	...	...	...	112	547	23	103	11	32	...	...	...	679	956	
Sept.,	2	...	16	...	1	...	6	2	...	461	15	2	1	184	8	47	61	20	163	4	28	...	...	...	68	432	8	165	9	146	...	...	...	828	1,021	
Oct.,	1	...	20	1	...	...	12	2	...	517	14	2	...	215	9	62	101	35	181	1	27	...	...	...	77	709	19	103	2	404	...	...	...	963	1,551	
Nov.,	...	...	12	2	2	...	14	1	...	523	20	...	1	193	23	52	110	17	141	12	22	...	...	...	102	1132	18	81	14	389	...	...	...	959	1,922	
Dec.,	...	...	30	3	...	...	12	1	...	498	33	...	4	220	24	35	112	26	126	8	34	...	...	...	126	1321	16	125	3	382	...	...	...	974	2,165	
TOTAL,	40	...	222	17	6	1	129	20	...	3921	213	14	22	1811	185	470	933	314	2220	88	277	...	...	...	1651	13,284	780	6667	95	2846	2	...	...	9543	26,685	

TABLE XXVII.

GLASGOW.—STATUTORY DECLARATIONS OF CONSCIENTIOUS OBJECTION TO VACCINATION  
in each Ward from 1907 to 1913.

MUNICIPAL WARDS.	1907-10.	1911.	1912.	1913.	TOTAL.
1. Dalarnock, ... ..	564	306	395	395	1,660
2. Calton, ... ..	239	96	139	153	627
3. Mile-end, ... ..	554	299	321	358	1,532
4. Whitevale, ... ..	272	144	145	178	739
5. Dennistoun, ... ..	416	172	203	206	997
6. Springburn, ... ..	1,020	344	438	516	2,318
7. Cowlairs, ... ..	648	243	286	325	1,502
8. Townhead, ... ..	421	149	171	179	920
9. Blackfriars, ... ..	117	63	62	80	322
10. Exchange, ... ..	9	2	3	...	14
11. Blythswood, ... ..	10	4	8	4	26
12. Broomielaw, ... ..	34	11	15	13	73
13. Anderston, ... ..	272	110	119	156	657
14. Sandyford, ... ..	136	74	77	79	366
15. Park, ... ..	79	30	50	42	201
16. Cowcaddens, ... ..	236	118	128	149	631
17. Woodside, ... ..	599	234	263	275	1,371
18. Hutchesontown, ... ..	430	272	293	333	1,328
19. Gorbals, ... ..	245	95	131	161	632
20. Kingston, ... ..	330	166	214	229	939
21. Govanhill, ... ..	631	244	246	342	1,463
22. Langside, ... ..	380	130	177	199	886
23. Pollokshields, ... ..	62	34	28	34	158
24. Kelvinside, ... ..	81	39	23	38	181
25. Maryhill, ... ..	519	267	304	269	1,359
26. Kinning Park, ... ..	237	145	132	155	669
Old City, ... ..	8,541	3,791	4,371	4,868	21,571
27. Plantation, ... ..	...	...	...	231	231
28. Ibrox, ... ..	...	...	...	134	134
29. Govan (Central), ... ..	...	...	...	245	245
30. Fairfield, ... ..	...	...	...	276	276
31. Partick (East), ... ..	...	...	...	72	72
32. Partick (Central), ..	...	...	...	194	194
33. Partick (West), ... ..	...	...	...	181	181
34. Jordanhill, ..	...	...	...	108	108
35. Pollokshaws, ... ..	...	...	...	172	172
36. Cathcart, ... ..	...	...	...	83	83
37. Shettleston and Tollcross,...	...	...	...	228	228
Institutions, &c., ... ..	...	...	...	12	12
Greater Glasgow, ... ..	...	...	...	6,804	23,508



TABLE XXVIII.

GLASGOW, 1913.—TABLE SHOWING CASES OF PUERPERAL FEVER IN EACH WARD,  
WITH NATURE OF ATTENDANCE AT BIRTH.

MUNICIPAL WARDS.	Doctor Alone.	Midwife.		Nurse and Doctor.	Total.
		Certified	Uncertified.		
1. Dalmarnock, ... ..	2	3	4	2	11
2. Calton, ... ..	...	...	1	...	1
3. Mile-end, ... ..	1	1	1	2	5
4. Whitevale, ... ..	1	3	1	2	7
5. Dennistoun, ... ..	1	...	...	...	1
6. Springburn, ... ..	4	1	...	2	7
7. Cowlairs, ... ..	1	1	...	2	4
8. Townhead, ... ..	...	3	2	3	8
9. Blackfriars, ... ..	...	1	1	...	2
10. Exchange, ... ..	1	...	...	...	1
11. Blythswood, ... ..	...	...	...	...	...
12. Broomielaw, ... ..	...	1	...	1	2
13. Anderston, ... ..	2	1	...	2	5
14. Sandyford, ... ..	1	1	...	...	2
15. Park, ... ..	...	1	...	...	1
16. Cowcaddens, ... ..	1	1	1	1	4
17. Woodside, ... ..	2	...	...	4	6
18. Hutchesontown, ... ..	3	2	1	4	10
19. Gorbals, ... ..	2	2	2	1	7
20. Kingston, ... ..	...	3	2	1	6
21. Govanhill, ... ..	...	2	2	1	5
22. Langside, ... ..	1	...	...	1	2
23. Pollokshields, ... ..	1	...	...	1	2
24. Kelvinside, ... ..	...	...	...	1	1
25. Maryhill, ... ..	4	3	3	3	13
26. Kinning Park, ... ..	3	...	...	...	3
27. Plantation, ... ..	3	2	1	1	7
28. Ibrox, ... ..	1	...	...	...	1
29. Govan, (Central), ... ..	1	2	...	...	3
30. Fairfield, ... ..	2	1	...	...	3
31. Partick, (East), ... ..	2	...	...	1	3
32. „ (Central), ... ..	2	...	1	...	3
33. „ (West), ... ..	2	...	1	...	3
34. Jordanhill, ... ..	1	...	...	...	1
35. Pollokshaws, ... ..	3	...	...	...	3
36. Cathcart, ... ..	...	...	...	...	...
37. Tollcross and Shettleston,	3	3	...	...	6
City, ... ..	51	38	24	36	149



TABLE XXX.  
GLASGOW, 1913.—CERTIFICATION of DEATHS.

	10 Years. 1891-1900.	5 Years. 1901-1905.	5 Years. 1906-10.	1911.	1912.	1913.
Total Deaths, ...	149,184	73,805	70,186	12,898	12,760	16,949
Of these Uncertified, ...	4,916	1,865	961	179	132	133
Died without Medical Attendance, ...	2,638	912	641	93	60	109
Deaths under 5 years, ...	62,350	28,985	26,956	4,806	4,449	6,098
Of these Uncertified, ...	3,027	1,122	453	74	56	49
Died without Medical Attendance, ...	1,738	618	498	71	52	87
Deaths above 5 years, ...	86,834	44,820	43,230	8,092	8,311	10,851
Of these Uncertified, ...	1,889	743	507	105	76	84
Died without Medical Attendance, ...	900	294	143	22	8	22
Percentage of Total Deaths Uncertified, ...	3·3	2·5	1·4	1·4	1·0	0·8
Percentage of Total Deaths which occurred without Medical Attendance, ...	1·8	1·2	0·9	0·7	0·5	0·6
Percentage of Deaths under 5 years Uncertified, ...	4·9	3·9	1·7	1·5	1·3	0·8
Percentage of Deaths under 5 years which occurred without Medical Attendance, ...	2·8	2·1	1·8	1·5	1·2	1·4
Percentage of Deaths above 5 years Uncertified, ...	2·2	1·7	1·2	1·3	0·9	0·8
Percentage of Deaths above 5 years which occurred without Medical Attendance, ...	1·0	0·7	0·3	0·3	0·1	0·2

TABLE XXXI.  
GLASGOW, 1913.—COMPARATIVE CERTIFICATION of LEGITIMATE and ILLEGITIMATE CHILDREN.

	10 Years. 1891-1900.	5 Years. 1901-1905.	5 Years. 1906-10.	1911.	1912.	1913.
Legitimate Deaths under 1 year, ...	30,304	15,453	13,314	2,562	2,394	3,261
Of these Uncertified, ...	1,853	821	311	42	19	25
Legitimate Deaths, 1—5 years, ...	26,066	11,332	11,166	1,763	1,682	2,277
Of these Uncertified, ...	476	144	59	9	7	1
Illegitimate Deaths under 1 year, ...	4,202	2,022	1,810	382	273	420
Of these Uncertified, ...	551	169	75	22	23	19
Illegitimate Deaths, 1—5 years, ...	1,778	713	666	99	100	140
Of these Uncertified, ...	147	18	11	1	7	3
Percentage Legitimate Deaths under 1 year Uncertified, ...	6·1	5·3	2·3	1·6	0·8	0·8
Percentage Legitimate Deaths, 1—5 years, Uncertified, ...	1·8	1·3	0·5	0·5	0·4	0·04
Percentage Illegitimate Deaths under 1 year Uncertified, ...	13·1	8·4	4·1	5·7	8·4	4·5
Percentage Illegitimate Deaths, 1—5 years, Uncertified, ...	8·3	2·5	1·7	1·0	7·0	2·1



TABLE XXXII.

GLASGOW, 1913.—INSURANCE of LIVES in FRIENDLY SOCIETIES, with COMPARISON of INSURANCE of LEGITIMATE and ILLEGITIMATE CHILDREN.

	10 Years. 1891-1900.	5 Years. 1901-1905.	5 Years. 1906-10.	1911.	1912.	1913.
Total Deaths, ...	149,184	73,805	70,186	12,898	12,760	16,949
Of these Insured, ...	87,824	44,829	45,263	8,400	8,354	11,147
Deaths under 5 years, ...	62,350	28,985	26,956	4,806	4,449	6,098
Of these Insured, ...	33,333	15,316	15,027	2,572	2,438	3,427
Deaths above 5 years, ...	86,834	44,820	43,230	8,092	8,311	10,851
Of these Insured, ...	54,491	29,513	30,236	5,828	5,916	7,720
Legitimate Deaths under 1 year, ...	30,304	15,453	1,3314	2,562	2,394	3,261
Of these Insured, ...	13,052	6,417	6,000	1,142	1,036	1,505
Illegitimate Deaths under 1 year, ...	4,202	2,022	1,810	382	273	420
Of these Insured, ...	434	243	254	42	33	38
Legitimate Deaths, 1—5 years, ...	26,066	13,132	11,166	1,763	1,682	2,277
Of these Insured, ...	19,232	8,401	8,484	1,355	1,338	1,834
Illegitimate Deaths, 1—5 years, ...	1,778	713	666	99	100	140
Of these Insured, ...	615	255	289	33	31	50
Percentage of Total Deaths Insured, ...	58·9	60·7	64·5	65·1	65·5	65·8
Do. Deaths under 5 years Insured, ...	53·5	52·8	55·7	53·5	54·8	56·2
Do. Deaths above 5 years Insured, ...	62·8	65·8	69·9	72·0	71·2	71·2
Do. Legitimate Deaths under 1 year Insured, ...	43·1	41·5	45·1	44·6	43·3	46·2
Do. Illegitimate Deaths under 1 year Insured, ...	10·3	12·0	14·0	11·0	12·1	9·0
Do. Legitimate Deaths, 1—5 years, Insured, ...	73·8	74·1	76·0	76·9	79·5	80·5
Do. Illegitimate Deaths, 1—5 years, Insured, ...	34·6	35·8	43·4	33·3	31·0	35·7

TABLE XXXIII.—GLASGOW, 1913.—DEATHS in FRIENDLY SOCIETIES in each MUNICIPAL WARD.

MUNICIPAL WARDS.					Under 1 Year.		1 and under 5 Years.		5 Years and over.	TOTAL.
					Legitimate.	Illegitimate.	Legitimate.	Illegitimate.		
1. Dalmarnock, ... ..					132	...	140	3	432	707
2. Calton, ... ..					80	4	94	1	369	548
3. Mile-end, ... ..					125	3	124	6	420	678
4. Whitevale, ... ..					62	3	69	1	282	417
5. Dennistoun, ... ..					20	...	30	2	217	269
6. Springburn, ... ..					79	3	92	2	334	510
7. Cowlairs, ... ..					51	...	55	2	236	344
8. Townhead, ... ..					62	2	68	2	333	467
9. Blackfriars, ... ..					28	1	42	3	167	241
10. Exchange, ... ..					1	...	1	...	13	15
11. Blythswood, ... ..					...	...	1	...	14	15
12. Broomielaw, ... ..					9	1	12	...	63	85
13. Anderston, ... ..					66	1	62	5	290	424
14. Sandyford, ... ..					23	2	65	...	190	280
15. Park, ... ..					2	...	7	...	131	140
16. Cowcaddens, ... ..					77	6	88	...	343	514
17. Woodside, ... ..					57	1	74	2	378	512
18. Hutchesontown, ... ..					73	1	97	3	344	518
19. Gorbals, ... ..					26	2	43	2	260	333
20. Kingston, ... ..					61	1	67	3	297	429
21. Govanhill, ... ..					50	...	57	2	231	340
22. Langside, ... ..					7	...	9	...	85	101
23. Pollokshields, ... ..					2	...	1	...	68	71
24. Kelvinside, ... ..					...	...	6	...	45	51
25. Maryhill, ... ..					55	...	58	1	291	405
26. Kinning Park, ... ..					26	...	38	2	102	168
27. Plantation, ... ..					28	...	44	...	182	254
28. Ibrox, ... ..					45	...	48	...	157	250
29. Govan (Central), ... ..					77	2	83	1	195	358
30. Fairfield, ... ..					22	...	46	1	145	214
31. Partick (East), ... ..					20	2	35	...	163	220
32. Partick (Central), ... ..					39	...	61	1	157	258
33. Partick (West), ... ..					22	1	28	2	128	181
34. Jordanhill, ... ..					10	1	14	...	87	112
35. Pollokshaws, ... ..					1	...	3	...	15	19
36. Cathcart, ... ..					7	...	6	...	47	60
37. Shettleston and Tollcross, ... ..					58	1	61	3	193	316
— Institutions and Harbour, ... ..					2	...	5	...	316	323
City, ... ..					1,505	38	1,834	50	7,720	11,147

TABLE XXXIV.—GLASGOW.—FARMED-OUT HOUSES and INMATES as at 28th DECEMBER, 1913.

WARDS.	Number of Farmed-out Houses.		Inmates in Houses of each Size.			
	1 Apt.	2 Apts.	1 Apartment.		2 Apartments.	
			Adults.	Children.	Adults.	Children.
1. Dalmarnock, ...	...	...	...	...	...	...
2. Calton, ...	212	99	381	118	216	73
3. Mile-end, ...	...	...	...	...	...	...
4. Whitevale, ...	35	29	69	13	78	19
5. Dennistoun, ...	54	15	114	18	39	8
6. Springburn, ...	...	...	...	...	...	...
7. Cowlares, ...	...	...	...	...	...	...
8. Townhead, ...	45	5	82	26	13	11
9. Blackfriars, ...	139	154	285	63	488	125
10. Exchange, ...	13	1	26	4	4	...
11. Blythswood, ...	...	...	...	...	...	...
12. Broomielaw, ...	11	6	16	1	19	4
13. Anderston, ...	53	31	88	22	63	39
14. Sandyford, ...	...	...	...	...	...	...
15. Park, ...	...	...	...	...	...	...
16. Cowcaddens, ...	146	14	248	42	38	9
17. Woodside, ...	...	...	...	...	...	...
18. Hutchesontown, ...	35	19	74	23	58	13
19. Gorbals, ...	25	25	44	10	47	21
20. Kingston, ...	1	41	2	2	79	38
21. Govanhill, ...	...	...	...	...	...	...
22. Langside, ...	...	...	...	...	...	...
23. Pollokshields, ...	...	...	...	...	...	...
24. Kelvinside, ...	...	...	...	...	...	...
25. Maryhill, ...	...	...	...	...	...	...
26. Kinning Park, ...	...	...	...	...	...	...
27. Plantation, ..	148	10	207	114	14	11
28. Ibrox, ...	...	...	...	...	...	...
29. Govan (Central), ...	...	...	...	...	...	...
30. Fairfield, ...	...	...	...	...	...	...
31. Partick, ...	...	...	...	...	...	...
32. Partick (Central), ...	64	4	143	52	18	5
33. Partick (West), ...	...	...	...	...	...	...
34. Jordanhill, ...	...	...	...	...	...	...
35. Pollokshaws, ...	...	...	...	...	...	...
36. Cathcart, ...	...	...	...	...	...	...
37. Tollcross & Shettleston,	...	...	...	...	...	...
TOTAL, ...	981	453	1,779	508	1,174	376

Note.—116 One-apartment Houses and  
58 Two-apartment Houses } unoccupied on this date.



TABLE XXXV.—HOUSES LET in LODGINGS and INMATES, as at 28th DECEMBER, 1913.

WARDS.	No. of Houses on Register.	No. of Houses Empty or in which no Lodgers kept.	No. of Houses Actually Let in Lodgings.	No. of Apartments.	No. to Accommodate (Adults).	Inmates found.	
						No. of Families.	Total No. of Persons (All Ages).
1. Dalmarnock, ...	6	...	6	12	42 $\frac{1}{2}$	12	39
2. Calton, ...	21	3	18	63	179 $\frac{1}{2}$	35	93
3. Mile-end, ...	8	...	8	21	63	19	51
4. Whitevale, ...	6	...	6	21	56	21	56
5. Dennistoun, ...	...	...	...	...	...	...	...
6. Springburn, ...	5	...	5	10	35	17	30
7. Cowlares, ...	1	...	1	8	110	8	36
8. Townhead, ...	9	...	9	20	69	19	61
9. Blackfriars, ...	48	1	47	181	479 $\frac{1}{2}$	140	347
10. Exchange, ...	...	...	...	...	...	...	...
11. Blythswood, ...	...	...	...	...	...	...	...
12. Broomielaw, ...	15	1	14	53	195	53	96
13. Anderston, ...	8	1	7	29	86	31	62
14. Sandyford, ...	7	1	6	23	73 $\frac{1}{2}$	25	41
15. Park, ...	1	...	1	6	33	4	12
16. Cowcaddens, ...	1	...	1	2	8 $\frac{1}{2}$	2	9
17. Woodside, ...	3	...	3	27	138 $\frac{1}{2}$	26	89
18. Hutchesontown, ...	6	...	6	14	40	11	42
19. Gorbals, ...	24	...	24	77	237	75	176
20. Kingston, ...	6	3	3	22	70 $\frac{1}{2}$	12	39
21. Govanhill, ...	...	...	...	...	...	...	...
22. Langside, ...	...	...	...	...	...	...	...
23. Pollokshields, ...	...	...	...	...	...	...	...
24. Kelvinside, ...	...	...	...	...	...	...	...
25. Maryhill, ...	18	...	18	39	142	46	117
26. Kinning Park, ...	...	...	...	...	...	...	...
27. Plantation, ...	3	...	3	9	34	6	12
28. Ibrox, ...	17	...	17	37	111	49	112
29. Govan (Central), ...	16	...	16	33	112 $\frac{1}{2}$	32	87
30. Fairfield, ...	...	...	...	...	...	...	...
31. Partick, ...	6	...	6	12	37 $\frac{1}{2}$	16	33
32. Partick (Central), ...	5	...	5	10	30 $\frac{1}{2}$	12	25
33. Partick (West), ...	6	...	6	12	42 $\frac{1}{2}$	18	39
34. Jordanhill, ...	...	...	...	...	...	...	...
35. Pollokshaws, ...	...	...	...	...	...	...	...
36. Cathcart, ...	...	...	...	...	...	...	...
37. Tollcross and Shettleston, ...	1	...	1	2	8	2	8
TOTAL, ...	247	10	237	743	2,434 $\frac{1}{2}$	691	1,712

MUNICIPAL WARDS.	Laundries.	Retail Bakehouses.	Bakehouses in connection with Restaurants.	Dairy Premises with Hot-plates in use.	Dairy Premises with Griddles in use.	Provision Shop Premises with Hot-plates in use.	Restaurant Kitchens.	Other Food Places.	All other Workshops.	Total Workshops (including Bakehouses and Premises with Hot-plates).	Number of Inspections.	Number of Notices issued.
1. Dalmarnock, ...	5	11	3	36	...	1	34	2	125	217	1,085	42
2. Calton, ...	6	13	1	25	...	...	13	20	348	426	2,089	121
3. Mile-end, ...	8	7	3	40	...	1	33	5	161	258	1,300	42
4. Whitevale, ...	2	8	3	21	...	1	18	13	149	215	1,946	52
5. Dennistoun, ...	4	8	1	34	...	...	9	4	99	159	1,372	25
6. Springburn, ...	4	1	...	24	...	...	20	2	57	108	516	35
7. Cowlands, ...	2	2	1	10	...	...	19	...	38	72	425	20
8. Townhead, ...	3	6	2	19	1	...	19	1	146	197	1,256	82
9. Blackfriars, ...	1	6	3	15	...	1	12	23	281	342	2,333	120
10. Exchange, ...	1	3	4	...	...	...	27	6	375	416	2,044	150
11. Blythwood, ...	1	4	...	...	...	...	42	6	347	400	1,262	82
12. Broomielaw, ...	4	2	...	5	...	...	32	15	311	369	1,826	71
13. Anderston, ...	4	5	...	8	...	...	34	4	89	144	1,654	68
14. Sandyford, ...	5	7	1	8	...	...	8	3	251	283	2,135	76
15. Park, ...	8	5	...	9	...	1	2	6	195	226	1,671	48
16. Cowcaddens, ...	6	8	3	15	...	1	34	5	181	253	1,685	141
17. Woodside, ...	9	11	1	37	2	...	13	2	157	232	870	61
18. Hutchesontown, ...	4	7	...	35	...	...	17	12	87	162	1,380	55
19. Gorbals, ...	6	14	...	21	...	2	12	9	360	424	3,163	139
20. Kingston, ...	8	5	1	19	2	4	38	5	184	266	1,918	69
21. Govanhill, ...	3	10	...	31	1	1	...	4	39	89	579	44
22. Langside, ...	4	9	...	40	1	...	...	2	60	116	91	3
23. Pollokshields, ...	4	4	...	11	...	...	...	2	41	62	79	6
24. Kelvinside, ...	1	...	...	5	...	...	...	...	95	101	161	2
25. Maryhill, ...	6	2	...	20	...	...	6	...	66	100	112	2
26. Kinning Park, ...	4	1	1	8	...	...	...	2	47	63	38	2
27. Plantation, ...	5	4	...	23	...	...	18	...	90	140	160	12
28. Ibrox, ...	3	3	...	5	...	...	16	1	70	98	131	3
29. Govan (Central), ...	3	3	...	8	1	...	7	3	42	67	99	5
30. Fairfield, ...	5	2	...	12	...	1	17	...	60	97	145	17
31. Partick, ...	6	4	1	11	...	...	5	1	77	105	162	12
32. Partick (Central), ...	1	10	...	13	...	...	12	2	83	121	245	22
33. Partick (West), ...	1	4	...	14	...	1	11	1	45	77	159	12
34. Jordanhill, ...	1	1	...	4	...	...	...	...	14	20	69	3
35. Pollokshaws, ...	1	7	...	9	...	...	...	3	63	83	59	1
36. Cathcart, ...	1	3	...	11	...	...	...	...	14	29	29	1
37. Tollcross and Shettleston, ...	1	5	7	16	...	...	...	...	72	101	302	21
TOTAL IN CITY, ...	141	205	36	622	8	15	528	164	4,919	6,638	34,550	1,667
			241		645							

TABLE XXXVII.  
 FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, AND  
 HOMEWORK.

INSPECTION.  
 (Including Inspections made by Sanitary Inspectors.)

PREMISES. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries), ... Workshops (including Workshop Laundries), Workplaces (other than Outworkers' Premises included in Part 3 of this Report), ... ..	34,550	1,667	...
Total, .. ...	34,550	1,667	...

DEFECTS FOUND.

PARTICULARS. (1)	Number of Defects			Number of Prosecutions. (5)
	Found. (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
* Nuisances under the Public Health Acts—				
Want of cleanliness, ... ..	633	614	...	..
Want of ventilation or light, ... ..	44	45	...	..
Overcrowding, ... ..	2	1	...	...
Want of drainage of floors, .. ...	715	720	...	...
Other nuisances, ... ..				
Sanitary accommodation—(a) Insufficient, ... .. (b) Unsuitable or defective, } (c) Not separate for sexes, }	125	141	...	...
Offences under the Factory and Workshop Act—				
Illegal occupation of underground bakehouse (Section 101), ... ..	...	...	...	..
Breach of special sanitary requirements for bakehouses (Sections 97 to 100), ... ..	148	200	...	...
Other offences, ... ..	...	...	...	..
(Excluding offences relating to outwork which are included in Part 3 of this Report.)	...	...	...	...
Total, ... ..	1,667	1,721	...	...

\* Including those specified in Sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.



TABLE XXXVIII.

REGISTERED WORKSHOPS.				OTHER MATTERS.	
Workshops on the Register (Section 131) at the end of the year.			Class.	Number.	
(1)			(1)	(2)	
Laundries, ...	...	...	Matters notified to H.M. Inspector of Factories :—		
Bakehouses :—			Failure to affix Abstract of the Factory and Workshop Act, 1901 (Section 133), ...	21	
Underground, ...	...	52	...	...	
Overground, ...	...	189	Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (Section 5) ...	196	
Restaurant Kitchens,	...	241	{	{	
Other Food Places,	...	528			Reports (of action taken) sent to H.M. Inspector, ...
All other Workshops,	...	164	Other, ...	196	
Dairy and other Premises with hot plates for baking purposes,	...	4,919	...	...	
	...	645	Underground Bakehouses (Section 101) :—	...	
	...		Certificates granted during the year, ...	...	
	...		In use at the end of the year, ...	53	
Total number of workshops on Register, ...					
6,638					

Important classes of workshops, such as work-shop bakehouses, may be enumerated here.

NOTE.—The Factory and Workshop Act, 1901 (Section 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary to include in the copy sent to the Home Office the portions which do not relate to factories, workshops, laundries, workplaces, or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of December, 1904. A further Memorandum, on the Home Work Provisions of the Factory Act, was issued to all District Councils and Medical Officers of Health in October, 1906.

August, 1914.

(Signature) A. K. CHALMERS,  
Medical Officer of Health.

TABLE XXXIX.—HOME WORK.

OUTWORKERS' LISTS, SECTION 107.																	OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
NATURE OF WORK.*	LISTS RECEIVED FROM EMPLOYERS.							Notices served on Occupiers as to keeping or sending lists. (8)	PROSECUTIONS.		Instances. (11)	Notices served. (12)	Prosecutions. (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 110). (16)						
	Twice in the year.			Once in the year.					Failing to keep or permit inspection of lists. (9)	Failing to send lists. (10)												
	Lists. † (2)	Outworkers. †		Lists. (5)	Outworkers. †		Workmen. (7)															
		Con- tractors. (3)	Workmen. (4)		Con- tractors. (6)	Workmen. (7)																
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)							
Wearing apparel—	908	1,462	1,375	125	164	149	...	...	...	...	...	...	...	...	...							
(1) making, &c.,...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
(2) cleaning and washing.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Household linen, ...	2	17	...	1	1	6	...	...	...	...	...	...	...	...	...							
Lace, lace curtains and nets,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Curtains & furniture hangings,	12	18	2	2	6	...	...	...	...	...	...	...	...	...	...							
Furniture and upholstery, ...	64	147	8	11	22	...	...	...	...	...	...	...	...	...	...							
Electro-plate, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
File making,...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Brass and brass articles,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Fur pulling, ...	6	14	...	...	...	...	...	...	...	...	...	...	...	...	...							
Cables and chains, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Anchor and grapnels,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Cart gear, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Locks, latches, and keys.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Umbrellas, &c., ...	16	22	88	3	9	5	...	...	...	...	...	...	...	...	...							
Artificial flowers, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Nets other than wire nets,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Tents, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Sacks, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Racquet and tennis balls,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Paper bags and boxes,	28	23	74	2	6	1	...	...	...	...	...	...	...	...	...							
Brush making, ...	2	...	2	1	5	...	...	...	...	...	...	...	...	...	...							
Pea picking, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Feather sorting, ...	...	11	2	...	2	...	...	...	...	...	...	...	...	...	...							
Carding, &c., of buttons, &c.,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Stuffed toys, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Basketmaking, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...							
Total ...	1,038	1,678	1,555	146	215	163	...	...	...	47	47	...	7	7	...							

\* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3, and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year, and of the entries of names of outworkers in these lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer; in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since, in the February and August lists of the same employer, the same outworker's name will often be repeated.

Nine firms sent in lists twice in the year, and four firms sent in lists once in the year with various classes of work on each. In each case the lists were entered under the principal Class A, and the outworkers assigned under their respective classes.

TABLE XL.—GLASGOW WORKSHOPS MEASURED AND REGISTERED  
DURING 1913.

Nature of Workshop.	Number of Workshops.	Total Number of Rooms.	Total Number of Men.	Total Number of Women.	Total Young Persons, 14 to 18 Years.	Average Cubic Feet of Space in each Room.	Average Cubic Feet of Space for each Person.
I. Professional Occupations and their Subordinate Services—							
1. Medical— Artificial Teeth Makers,...	1	1	1	...	...	1,826	1,826
2. Art, Music, Drama, &c.— Photographers, ... ..	6	13	8	10	1	2,033	1,391
II. Domestic Offices or Services—							
Laundries, ... ..	15	28	...	85	6	2,759	849
III. Metals, Machines, Implements, and Conveyances—							
1. Engineering & Machine Making—							
Blacksmiths, ... ..	9	9	17	...	1	6,392	3,196
Machine Repairers, ...	1	2	2	...	2	1,755	877
Metal Refiners, ... ..	1	4	3	...	...	9,382	12,510
Saw Maker, ... ..	1	1	3	...	1	9,024	2,256
File Cutter, ... ..	1	2	5	1	...	7,722	2,574
Locksmith, ... ..	1	1	4	...	...	2,321	580
2. Electrical Apparatus—							
Tool Makers, ... ..	1	1	1	...	1	1,637	815
Electrical Engineers, ...	3	3	8	...	1	5,017	1,672
3. Miscellaneous Metal Trades—							
Tinsmiths and Copper- smiths, ... ..	4	4	7	...	3	3,057	1,223
Farriers, ... ..	1	1	3	...	...	8,463	2,821
4. Vehicles—							
Cycle and Motor Makers, ...	7	7	8	...	6	3,147	1,645
Cartwrights, ... ..	1	1	3	...	1	52,650	13,162
IV. Precious Metals, Jewels, Watches, Instruments, and Games—							
1. Precious Metals and Jewellery— Jewellers, Watch and Clock Makers, ...	13	15	22	1	5	2,422	1,298
2. Watches and Scientific Instru- ment Makers—							
3. Apparatus for Sports and Games—							
4. Musical Instrument Makers, ...	4	4	6	2	2	3,413	1,365
V. Building and Works of Construc- tion—							
1. House Building, &c.—							
Joiners and Wrights, ...	16	19	34	...	5	10,249	4,993
Plumbers and Gasfitters,...	29	30	73	2	19	3,352	1,070
Coopers, ... ..	2	2	5	...	1	4,051	1,850



WORKSHOPS MEASURED AND REGISTERED DURING 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Rooms.	Total Number of Men.	Total Number of Women.	Total Young Persons, 14 to 18 Years.	Average Cubic Feet of Space in each Room.	Average Cubic Feet of Space in each Person.
<b>VI. Wood, Furniture, Fittings, and Decorations—</b>							
Hassock Maker, ... ..	1	1	...	1	...	1,633	816
Embroiderer, ... ..	1	1	...	7	2	7,216	802
Carver & Gilder, ... ..	1	1	1	...	...	4,124	2,062
Coffin Making and Mounting, ... ..	1	1	1	...	...	1,452	1,452
Cork Cutter, ... ..	1	1	4	1	...	2,511	502
<b>1. Furniture, Fittings, and Decorations—</b>							
Modeller, ... ..	1	1	1	...	...	1,615	1,615
Upholsterers, ... ..	10	15	30	22	9	7,855	1,932
Upholstery Trimming Makers, ... ..	1	1	3	8	...	17,400	1,582
Picture-frame Maker, ...	2	2	3	1	1	5,737	2,295
Fancy Box Maker, ... ..	2	3	4	10	2	8,622	1,617
Cabinetmakers and French Polishers, ... ..	31	46	94	47	6	5,883	1,841
Painters & Decorators, ...	9	10	18	...	6	1,940	808
Window Blind Makers, ...	2	2	2	2	3	13,088	3,739
<b>2. Wood and Bark—</b>							
Packing Case Maker, ...	1	1	1	...	...	2,565	2,565
Shopfitter, ... ..	1	1	2	1	1	6,360	1,590
<b>VII. Brick, Cement, Pottery, and Glass—</b>							
Slaters, ... ..	2	2	3	...	1	2,702	1,351
Chimney Bowl Maker, ...	1	1	3	...	...	12,274	4,091
Concrete Block Maker, ...	1	1	1	...	...	27,000	27,000
Glaziers, ... ..	3	4	25	...	1	9,011	1,386
Plasterer, ... ..	1	2	7	...	...	9,227	2,636
<b>VIII. Chemicals, Oil, Grease, Soap, Resin, &amp;c.—</b>							
<b>1. Colouring Manufacture—</b>							
<b>2. Salt Drugs and other Chemicals and Compounds—</b>							
Manufacturing Chemists, ...	2	3	...	7	3	3,628	1,088
<b>3. Oil, Grease, Soap, Resin, &amp;c.—</b>							
India-rubber Tyre Maker, ...	5	6	12	...	2	5,293	2,268
<b>IX. Skins, Leather, Hair, &amp; Feathers—</b>							
<b>1. Skins and Leather—</b>							
Furriers, ... ..	9	15	16	37	10	5,078	1,209
<b>2. Saddlery and Harness—</b>							
Saddlers, ... ..	7	8	13	2	2	2,909	1,369
<b>3. Hair and Feathers—</b>							
Brushmaker, ... ..	1	2	4	1	1	5,543	1,848
Hairdresser & Wig Makers, ...	2	2	3	...	1	3,658	1,829
<b>X. Paper, Stationery, Books, and Prints—</b>							
<b>1. Paper and Stationery—</b>							
<b>2. Prints and Books—</b>							
Ticket Writers, ... ..	3	5	9	3	...	3,233	1,347
Printers and Bookbinders, ...	3	3	9	5	3	7,886	1,392
Transfer Paper Coating, ...	1	1	1	...	1	1,430	715
<b>XI. Textile Fabrics—</b>							
<b>1. Hemp and other Fibrous Materials—</b>							
Bedding Manufacturers, ...	5	9	12	14	1	7,847	2,616
Flag Makers, ... ..	1	2	3	2	...	1,650	660

WORKSHOPS MEASURED AND REGISTERED DURING 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Rooms.	Total Number of Men.	Total Number of Women.	Total Young Persons, 14 to 18 Years.	Average Cubic Feet of Space in each Room.	Average Cubic Feet of Space for each Person.
<b>I. Textile Fabrics—Continued.</b>							
2. Mixed or Unspecified Materials—							
Wool Sorter, ... ..	1	1	1	2	...	8,170	2,723
Tape-line Maker, ... ..	1	1	1	2	...	11,060	3,687
Weavers, ... ..	2	2	14	...	...	9,205	1,315
<b>II. Dress—</b>							
Children's Outfitter, ...	1	3	...	26	2	2,808	3,011
Boot, Shoe, and Slipper Makers, ... ..	138	145	213	22	10	2,213	1,310
Dressmakers, ... ..	78	93	5	422	91	3,218	578
Clog Makers, ... ..	3	4	10	...	...	3,661	1,465
Hat and Cap Makers, ...	6	12	43	26	15	4,254	608
Mantle and Costume Makers, ... ..	9	12	...	53	12	3,604	665
Milliners, ... ..	39	39	3	86	24	2,470	852
Tailors and Clothiers, ...	128	191	379	323	100	3,234	553
Hosiery Manufacturer, ...	3	4	...	27	5	6,248	781
Underclothing Manufacturers, ... ..	7	9	...	46	9	3,185	521
Umbrella Makers, ... ..	3	5	4	25	3	3,725	582
Draper, ... ..	1	2	...	1	2	2,414	1,609
Art Needle Work, ... ..	1	1	...	1	1	3,024	1,512
Stay Maker, ... ..	1	1	...	1	...	1,047	1,047
Theatrical Costumer, ...	1	3	...	7	...	3,375	1,446
Tie Makers, ... ..	2	4	4	76	46	14,795	469
<b>III. Food, Tobacco, and Drink—</b>							
1. Food—							
Fish Curer, ... ..	2	3	8	...	...	4,128	1,548
Confectioners and Preserve Makers, ... ..	12	14	16	8	4	2,592	1,296
Tea Blender and Packer, ...	3	5	4	5	7	3,226	1,008
Bottling and Labelling, ...	2	3	1	5	...	14,841	5,904
Tobacco Makers, ... ..	1	1	1	3	1	975	488
Poulterer, ... ..	1	1	6	...	...	2,593	432
Sauce Maker, ... ..	1	1	2	8	3	47,500	3,653
<b>IV. Other General and Undefined Workers and Dealers—</b>							
Sundry Specified Industries—							
Rag and Waste Paper Merchants, ... ..	9	14	9	37	1	7,857	3,158

## ABSTRACT OF RESTAURANTS MEASURED AND REGISTERED DURING 1913.

Districts.	Number of Restaurants.	Total Number of Rooms.	Total Number of Men.	Total Number of Women.	Total Young Persons, 14 to 18 Years.	Average Cubic Feet of Space in each Room.	Average Cubic Feet of Space for each Person.
Central, ... ..	30	31	15	71	7	3,143	1,048
Eastern, ... ..	21	23	24	23	3	2,184	1,005
Western, ... ..	8	8	5	17	...	3,144	1,143
Northern, ... ..	7	8	8	6	1	1,699	905
Southern, ... ..	9	9	3	17	2	4,818	1,971
North-West, ... ..	...	...	...	...	...	...	...
Winning Park, ... ..	...	...	...	...	...	...	...
South Suburban, ... ..	...	...	...	...	...	...	...
South-Western, ... ..	2	3	...	4	2	2,413	1,207

TABLE XLI.—GLASGOW—NUMBER OF WORKSHOPS AND EMPLOYEES ON THE  
REGISTERS, AS AT 31st DECEMBER, 1913.

Nature of Workshop.	Number of Workshops.	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
I. Professional Occupations and their Subordinate services—				
1. Medical—				
Artificial Teeth Makers, ... ..	39	77	7	22
Artificial Limb Makers, ... ..	3	10	3	...
2. Art, Music, Drama, &c.—				
China Painting, ... ..	2	2	5	...
Fine Art and Fancy Goods Dealers, ...	4	7	5	3
Photographers, ... ..	50	56	115	33
Engravers, ... ..	27	62	4	23
Sculptors, ... ..	9	24	...	8
II. Domestic Offices or Services—				
Laundries, ... ..	141	15	598	96
III. Mining and Quarrying—				
1. Mines and Quarry Service—				
Marble Cutters, ... ..	7	40	...	...
Grindstone Makers, ... ..	1	2	...	...
2. Dealers in Products of Mines and Quarries—				
Asbestos Manufacturer, ... ..	1	...	6	...
IV. Metals, Machines, Implements, and Conveyances—				
1. Manufacture of Mixed or Unspecified Metals—				
Metal Merchants and Refiners, ... ..	5	16	...	...
Spelter Manufacturer, ... ..	1	5	...	...
2. Engineering and Machine Making—				
Blacksmiths, ... ..	69	186	4	11
Boiler Coverers, ... ..	3	9	...	...
Brassfinishers, ... ..	9	24	5	3
Farriers, ... ..	34	129	...	3
Heating and Ventilating Engineers, ...	6	34	1	3
Indicator Makers, ... ..	1	8	...	2
Machine Makers and Repairers, ... ..	17	36	4	8
Machinists, ... ..	3	...	6	3
Pattern Makers, ... ..	4	18	...	1
Tinsmiths and Coppersmiths, ... ..	46	169	5	39
Sheet-metal Workers, ... ..	11	41	...	4
Galvanizer, ... ..	1	40	...	...
3. Electrical Apparatus—				
Electrical Engincers, ... ..	16	69	...	19
4. Tools—				
Saw Makers, ... ..	7	11	3	1
Cutlers, ... ..	2	3	...	...
File Cutters, ... ..	3	10	1	...
Grindstone Maker, ... ..	1	2	...	...



NUMBER OF WORKSHOPS AND EMPLOYEES ON THE REGISTERS,  
AS AT 31ST DECEMBER, 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
<b>IV. Metals, Machines, &amp;c.—<i>Continued</i>—</b>				
5. Types, Blocks, and Dies—				
Die Sinker, ... ..	1	6	...	...
6. Arms—				
Gunsmiths, ... ..	3	9	...	1
7. Miscellaneous Metal Trades—				
Chain Maker, ... ..	1	11	...	...
Fireproof-door Maker, ... ..	1	8	...	...
Lamp Makers, ... ..	1	4	...	...
Weighing Machine and Scale Makers, ...	4	14	...	3
Wire Workers, ... ..	7	32	...	6
Metal Designers, ... ..	2	5	...	2
Fire Extinguisher Maker, ... ..	1	6	...	3
Tool Makers, ... ..	2	4	...	1
8. Ships and Boats—				
Boat Builders, ... ..	2	4	...	...
9. Vehicles—				
Cartwrights, ... ..	32	142	2	12
Carriage Builders, ... ..	11	146	...	21
Cycle and Motor Makers and Repairers, ...	48	96	2	16
10. Dealers—				
Ironmongers and Mill Furnishers, ... ..	4	13	...	...
<b>V. Precious Metals, Jewels, Watches, Instruments, and Games—</b>				
1. Precious Metals and Jewellery—				
Gold Beaters, ... ..	2	17	1	...
Jewel-case Makers, ... ..	4	17	10	1
Jewellers, Goldsmiths, Watch and Clock Makers, ... ..	176	420	27	87
2. Watches and Scientific Instruments—				
Nautical and Scientific Instrument Makers,	6	21	4	5
Opticians, ... ..	6	13	...	3
Surgical Instrument Makers, ... ..	3	7	1	1
Steam Gauge Makers, ... ..	1	3	...	...
3. Musical Instruments—				
Musical Instrument Makers, ... ..	22	45	25	7
4. Tackle for Sports and Games—				
Billiard Table Makers, ... ..	4	23	21	...
Fishing-tackle Makers, ... ..	3	1	92	17
Fish Bass Makers, ... ..	1	...	3	...
Golf-club Makers, ... ..	10	32	8	10

NUMBER OF WORKSHOPS AND EMPLOYEES ON THE REGISTERS,  
AS AT 31st DECEMBER, 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
VI. Building and Works of Construction—				
1. Housebuilding, &c.—				
Joiners and Wrights, ... ..	220	678	2	92
Locksmiths, ... ..	3	8	...	1
Painters and Decorators, ... ..	66	285	10	71
Plasterers and Modellers, ... ..	15	32	...	13
Plumbers and Gasfitters, ... ..	269	877	50	226
Slaters, ... ..	22	95	...	7
Stair Railers, ... ..	3	13	...	...
Tile Layers, ... ..	2	4	...	1
Concrete Step Makers, ... ..	4	11	1	2
Cistern Maker, ... ..	1	3	...	...
Glaziers, ... ..	29	136	1	19
Masons, ... ..	3	8	...	...
VII. Wood, Furniture, Fittings, and Decorations—				
1. Furniture, Fittings, and Decorations—				
Picture-frame Makers, ... ..	30	87	9	13
Shop Fitters and Show-case Makers, ...	7	23	3	...
Modellers, ... ..	6	26	...	2
Upholsterers, ... ..	57	186	151	62
Upholstery Trimming Makers, ... ..	9	14	89	36
Basket Makers, ... ..	7	16	1	1
Bedding Manufacturers, ... ..	14	40	33	4
Bellows Maker, ... ..	1	3	...	...
Cabinetmakers and French Polishers, ...	157	685	210	75
Carvers and Gilders, ... ..	28	137	1	11
Coffin and Mounting Making, ... ..	16	41	2	...
Fancy-box Makers, ... ..	27	126	292	80
Box-clip Makers, ... ..	1	1	...	2
Map Mounting, ... ..	1	4	1	1
Marquetry-cutting, ... ..	1	2	1	1
Window Blind Makers, ... ..	3	5	6	3
2. Wood and Bark—				
Coopers, ... ..	12	61	...	3
Cork Cutters, ... ..	7	17	4	8
Lathsplitters, ... ..	2	15	...	1
Packing-case Makers, ... ..	7	35	...	5
Portmanteau Makers, ... ..	6	48	10	15
Saddle Tree Maker, ... ..	1	4	...	...
Trunk Makers, ... ..	4	25	3	4
Wood Turner, ... ..	1	2	...	...
Coffin Making and Mounting, ... ..	17	41	2	...
VIII. Brick, Cement, Pottery, and Glass—				
Glass Stainers and Embossers, ... ..	14	68	...	15
Pavement-light Maker, ... ..	1	10	...	2

NUMBER OF WORKSHOPS AND EMPLOYEES ON THE REGISTERS,  
AS AT 31st DECEMBER, 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
<b>IX. Chemicals, Oil, Grease, Soap, Resin, &amp;c.—</b>				
1. Colouring Matter—				
2. Salt, Drugs, and other Chemicals and Compounds—				
Chemical Manufacturers, ... ..	5	13	1	...
Fire Extinguisher Maker, ... ..	1	6	...	3
Manufacturing Chemists, ... ..	22	37	35	21
Wax Taper Maker, ... ..	1	1	4	...
3. Oil, Grease, Soap, Resin, &c.—				
Oil, Paint, and Varnish Manufacturers, ...	9	17	7	4
Drysalters, ... ..	7	12	14	5
Soap and Soda Manufacturers, ... ..	4	7	5	6
India Rubber Merchants, ... ..	1	3	...	..
India Rubber Stamp Makers, ... ..	4	8	1	...
Waterproof Manufacturers, ... ..	7	5	18	4
Rubber Tyre Maker, ... ..	...	...	...	...
<b>X. Skins, Leather, Hair, and Feathers—</b>				
1. Skins and Leather—				
Currier and Tanner, ... ..	1	3	1	...
Furriers, ... ..	26	36	112	24
Gut Cleaner, ... ..	1	16	35	10
Hat-box Makers, ... ..	1	1	...	2
Hide and Skin Merchants, ... ..	2	8	2	2
Rabbit Skin Driers, ... ..	2	3	...	...
2. Saddlery and Harness—				
Leather Belt Makers, ... ..	5	17	5	...
Saddlers, ... ..	50	182	16	23
Whip Maker, ... ..	1	1	...	...
3. Hair and Feathers—				
Brush Makers, ... ..	15	103	22	10
Feather Dressers, ... ..	3	...	6	2
<b>XI. Paper, Prints, Books, and Stationery—</b>				
1. Paper and Stationery—				
Card Cutters, ... ..	2	9	8	5
Envelope Maker, ... ..	1	3	18	7
Paper-bag Makers, ... ..	13	5	195	66
2. Books and Prints—				
Lithographers, ... ..	8	16	9	7
Printers, Bookbinders, and Stationers, ...	40	134	93	88
Ticket Writers, ... ..	17	47	8	9
Show Card Makers, ... ..	2	25	15	2
Fancy Leather Goods Makers, ... ..	2	4	4	5



NUMBER OF WORKSHOPS AND EMPLOYEES ON THE REGISTERS,  
AS AT 31st DECEMBER, 1913.—*Continued.*

Nature of Workshop.	Number of Workshops	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
<b>XII. Textile Fabrics—</b>				
1. Cotton—				
Warpers and Winders, ... ..	5	19	33	...
Weavers, ... ..	10	41	8	3
2. Wool and Worsted—				
Pattern Weaving and Darning, ... ..	8	46	25	5
Shawl and Scarf Manufacturers, ... ..	1	...	42	10
Wool Sorters, ... ..	4	1	16	2
3. Flax, Linen, Hemp, Jute, and other Fibrous Materials—				
Rope Makers, ... ..	2	8	...	...
Sack Makers and Repairers, ... ..	14	23	93	...
Sail Maker, ... ..	1	8	...	2
4. Mixed or Unspecified Materials—				
Carpet Sewing, ... ..	2	1	7	...
Art Needle Workers, ... ..	2	...	7	2
Embroiderers, ... ..	5	10	35	6
Flag Makers, ... ..	5	8	13	...
Fringer, ... ..	2	...	14	2
Tape-line Makers, ... ..	2	2	3	...
Thread Manufacturers, ... ..	1	6	79	...
5. Bleaching, Printing, Dyeing, &c.—				
Calenderers, ... ..	11	68	104	31
6. Dealers—				
Drapers, ... ..	13	21	46	18
<b>XIII. Dress—</b>				
Belt, Brace, and Necklet Makers, ... ..	2	7	21	15
Blouse Makers, ... ..	11	...	39	7
Boot, Shoe, and Slipper Makers, ... ..	649	1,259	52	50
Button and Stud Makers, ... ..	3	3	5	7
Children's Outfitters, ... ..	4	1	58	7
Clog Makers, ... ..	11	39	1	...
Dressmakers, ... ..	625	61	2,897	667
Hairdressers and Wig Makers, ... ..	57	128	24	23
Hat and Cap Manufacturers, ... ..	25	86	138	112
Handkerchief Hemmers, ... ..	8	6	177	49
Hosiery Manufacturers, ... ..	18	6	91	27
Last and Boot-tree Maker, ... ..	1	3	...	...
Mantle and Costume Makers, ... ..	65	38	832	147
Milliners, ... ..	242	5	545	145
Napery Hemming, ... ..	3	...	13	2
Pattern Book Makers, ... ..	9	16	51	42
Shirt and Collar Makers, ... ..	16	84	354	30
Stay Makers, ... ..	12	...	31	9
Tailors and Clothiers, ... ..	693	2,756	1,911	543
Tie Makers, ... ..	4	4	89	51
Umbrella Makers, ... ..	31	43	114	30

NUMBER OF WORKSHOPS AND EMPLOYEES ON THE REGISTERS,  
AS AT 31st DECEMBER, 1913.—*Continued.*

Nature of Workshop.	Number of Workshops.	Total Number of Men.	Total Number of Women.	Total Young Persons 14 to 18 Years.
<b>XIII. Dress—Continued—</b>				
Underclothing Manufacturers, ... ..	47	2	281	40
Hat Band and Pad Maker, ... ..	1	...	1	1
Highland Dress Accoutrement Makers, ...	4	6	6	...
Shroud and Grave-gown Makers, ... ..	4	1	10	5
Theatre Costume Maker, ... ..	...	...	...	...
<b>XIV. Food, Tobacco, Drink, and Lodging—</b>				
1. Food—				
Confectioners and Preserve Makers, ...	49	54	111	136
Fish Curers, ... ..	24	80	73	8
Ham Curers, ... ..	25	109	...	10
Pickle and Sauce Makers, ... ..	5	27	303	5
Poulterers, ... ..	5	34	2	...
Preserved Meat Makers, ... ..	12	10	20	4
Sausage-skin and Spice Makers, ... ..	22	37	53	11
Tea Blenders and Packers, ... ..	17	33	28	23
Packing Grocery Goods, ... ..	2	1	7	5
Produce Merchants, ... ..	6	12	3	7
2. Tobacco—				
Tobacco and Cigarette Makers, ... ..	14	45	127	55
3. Dealing with Spirituous Drinks—				
Bottling and Labelling, ... ..	44	125	167	29
4. Board, Lodging, &c.—				
Restaurants, ... ..	528	435	1,095	117
<b>XV. Gas, Water, and Electricity Supply—</b>				
Meter Fitting and Repairing, ... ..	1	430	...	...
<b>XVI. Other General and Undefined Workers and Dealers—</b>				
1. About Animals—				
Birds' Seed Merchant, ... ..	1	2	1	1
2. Sundry Specified Industries—				
Artistic Florist, ... ..	1	...	3	3
Mail-cart Makers, ... ..	1	8	4	...
Tobacco-pipe Makers, ... ..	8	44	16	5
Firelight Manufacturers, ... ..	9	67	7	1
Japanners, ... ..	7	15	11	8
Rag and Waste Paper Merchants, ... ..	82	245	422	20
Taxidermists, ... ..	2	3	...	1
Emery and Glass Paper Makers, ... ..	3	7	1	9
Florist, ... ..	3	1	8	4
3. Makers and Dealers (general and undefined)—				
Manufacturers and Warehousemen, ...	2	...	41	12
Smaller Trades, ... ..	11	14	2	4
Stores, ... ..	18	114	3	...
Totals, ... ..	5,737	13,535	13,260	4,125

TABLE XLII.

GLASGOW, 1913.—UNDERGROUND BAKEHOUSES, CERTIFIED AND OTHERWISE, WITH  
NUMBER OF VISITS.

WARDS.	Closed previous to 1913.	Closed during 1913.	No. on Register at 31st Dec., 1913.	Total Certified, 1913.		Inspec- tions, 1913.
				Occupied.	Unoccupied.	
1. Dalarnock, ... ..	...	...	1	1	...	3
2. Calton, ... ..	1	...	3	2	...	7
3. Mile end, ... ..	...	...	...	...	...	...
4. Whitevale, ... ..	1	1	...	...	...	3
5. Dennistoun, ... ..	1	...	3	2	...	7
6. Springburn. ... ..	1	...	1	1	...	3
7. Cowlares, ... ..	1	...	1	1	...	3
8. Townhead, ... ..	4	...	3	2	...	9
9. Blackfriars, ... ..	7	...	3	3	...	10
10. Exchange, ... ..	4	...	7	7	...	20
11. Blythswood, ... ..	5	...	2	2	...	6
12. Broomielaw, ... ..	5	...	3	2	1	6
13. Anderston, ... ..	2	...	2	1	...	4
14. Sandyford, ... ..	4	...	7	6	...	12
15. Park, ... ..	...	...	4	2	1	8
16. Cowcaddens, ... ..	9	...	7	3	2	14
17. Woodside, ... ..	3	...	2	2	...	4
18. Hutchesontown, ... ..	1	...	3	...	3	5
19. Gorbals, ... ..	10	...	4	3	1	8
20. Kingston, ... ..	1	...	2	1	...	4
21. Govanhill, ... ..	3	...	3	2	1	5
22. Langside, ... ..	...	...	1	...	...	2
23. Pollokshields, ... ..	2	...	5	4	1	6
24. Kelvinside, ... ..	1	...	1	1	...	2
25. Maryhill, ... ..	2	...	...	...	...	...
26. Kinning Park, ... ..	...	...	1	1	...	2
27. Plantation, ... ..	...	...	2	1	1	3
28. Ibrox, ... ..	...	...	...	...	...	...
29. Govan Central, ... ..	...	...	...	...	...	...
30. Fairfield, ... ..	...	...	...	...	...	...
31. Partick East, ... ..	...	...	1	1	...	3
32. Partick Central, ... ..	...	...	...	...	...	...
33. Partick West, ... ..	...	...	...	...	...	...
34. Jordanhill, ... ..	...	...	...	...	...	...
35. Pollokshaws, ... ..	...	...	1	1	...	3
36. Cathcart, ... ..	...	...	...	...	...	...
37. Tollcross and Shettleston, ... ..	...	...	...	...	...	...
CITY, ... ..	68	1	73	52	11	162



TABLE XLIII.

GLASGOW, 1913.—OVERGROUND BAKEHOUSES.

WARDS.	On Register, 1912.	On Register, 1913.	Inspections.	Number of Air Samples.	Number of Bakehouses from which Air Samples were taken.
1. Dalmarnock, ...	13	13	23	3	3
2. Calton, ...	10	12	22	3	3
3. Mile-end, ...	13	10	17	4	4
4. Whitevale, ...	10	11	18	4	3
5. Dennistoun, ...	6	7	5	...	...
6. Springburn, ...	...	...	...	...	...
7. Cowlairs, ...	2	2	...	...	...
8. Townhead, ...	6	6	9	...	...
9. Blackfriars, ...	7	6	7	...	...
10. Exchange, ...	...	...	2	...	...
11. Blythswood, ...	2	2	3	...	...
12. Broomielaw, ...	...	...	...	...	...
13. Anderston, ...	5	4	5	...	...
14. Sandyford, ...	...	2	5	...	...
15. Park, ...	5	3	5	...	...
16. Cowcaddens, ...	8	8	14	...	...
17. Woodside, ...	10	10	8	...	...
18. Hutchesontown, ...	7	7	9	...	...
19. Gorbals, ...	12	11	13	...	...
20. Kingston, ...	5	5	10	...	...
21. Govanhill, ...	8	8	13	2	1
22. Langside, ...	12	9	5	...	...
23. Pollokshields, ...	2	...	...	...	...
24. Kelvinside, ...	...	...	...	...	...
25. Maryhill, ...	4	2	8	...	...
26. Kinning Park, ...	1	1	2	...	...
27. Plantation, ...	1	3	8	3	3
28. Ibrox, ...	2	3	2	1	1
29. Govan (Central), ...	4	3	7	4	4
30. Fairfield, ...	2	2	4	1	1
31. Partick (East), ...	5	3	10	6	4
32. Partick (Central), ...	8	10	14	5	5
33. Partick (West), ...	6	4	9	5	5
34. Jordanhill, ...	...	1	1	...	...
35. Pollokshaws, ...	6	6	15	9	6
36. Cathcart, ...	3	3	6	3	3
37. Tollcross and Shettleston, ...	10	12	24	7	7
City, ...	195	189	303	60	53

TABLE XLIV.

GLASGOW, 1913.—REGISTRATION OF HAIRDRESSERS' SALOONS.

WARDS.	On Register, 31st Dec., 1912.	Applied for Registration during 1913.	Number Certified during 1913.	Withdrawn from Register.		On Register, 31st Dec., 1913.	Inspections.	Renewal Certificates.
				(a) Premises Closed.	(b) Non-compliance with Regulations.			
1. Dalnarnock, ...	2	...	...	1	...	1	3	...
2. Calton, ...	9	...	...	...	...	9	12	...
3. Mile-end, ...	11	...	...	...	...	11	24	1
4. Whitevale, ...	8	...	...	1	...	7	13	...
5. Dennistoun, ...	6	...	...	1	...	5	18	...
6. Springburn, ...	5	1	1	...	...	6	9	...
7. Cowlaers, ...	5	...	...	...	...	5	11	1
8. Townhead, ...	13	...	...	1	...	12	24	3
9. Blackfriars, ...	10	1	1	...	...	11	23	2
10. Exchange, ...	13	...	...	1	...	12	13	1
11. Blythswood, ...	4	...	...	...	...	4	5	...
12. Broomielaw, ...	6	...	...	...	...	6	9	...
13. Anderston, ...	5	...	...	...	...	5	12	...
14. Sandyford, ...	5	...	...	1	...	4	6	...
15. Park, ...	3	...	...	...	...	3	6	1
16. Cowcaddens, ...	13	1	1	1	...	13	24	...
17. Woodside, ...	7	...	...	...	...	7	11	...
18. Hutchesontown, ...	8	1	1	1	...	8	10	...
19. Gorbals, ...	6	...	...	...	...	6	12	1
20. Kingston, ...	4	1	1	1	...	4	7	...
21. Govanhill, ...	4	...	...	...	...	4	7	1
22. Langside, ...	5	...	...	...	...	5	11	1
23. Pollokshields, ...	...	...	...	...	...	...	...	...
24. Kelvinside, ...	2	...	...	...	...	2	2	...
25. Maryhill, ...	8	...	...	1	...	7	15	1
26. Kinning Park, ...	1	...	...	...	...	1	2	...
37. Shettleston and Tollicross, ...	...	6	6	...	...	6	18	...
Totals, ...	163	11	11	10	...	164	307	13

TABLE XLV.—GLASGOW.—POPULATION; BIRTHS and DEATHS; BIRTH-RATES and DEATH-RATES per 1,000; also DEATHS under 1 YEAR and DEATH-RATES per 1,000 BIRTHS, from 1860 to 1913.

Year.	Population.	Births.	Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.	Deaths under 1 Year.	
						Number.	Rate per 1,000 Births.
1860†	389,843	15,943	12,436	40·8	31·9	2,905	182
1861	397,673	16,537	10,936	41·6	27·5	2,544	154
1862	405,789	16,400	11,565	40·4	28·5	2,562	156
1863	413,944	16,986	13,329	41·0	32·2	2,774	163
1864	420,738	17,411	13,674	41·4	32·5	3,051	175
1865	428,123	17,956	13,914	41·9	32·5	3,097	173
1866	437,850	18,288	12,829	41·8	29·3	2,905	159
1867	446,028	18,347	12,578	41·1	28·2	2,895	158
1868	455,000	18,607	13,832	40·9	30·4	3,127	168
1869	464,332	18,495	15,648	39·8	33·7	3,411	184
1870	471,453	19,355	13,955	41·1	29·6	2,991	155
1871	491,900	18,867	15,790	38·4	32·1	3,608	191
1872	494,824	20,158	14,053	40·7	28·4	3,198	159
1873	494,847	19,487	14,499	39·4	29·3	3,255	167
1874	498,270	20,039	15,845	40·2	31·8	3,240	162
1875	499,480	20,825	15,384	41·7	30·8	3,388	163
1876	502,299	20,981	13,763	41·7	27·4	3,166	151
1877	504,487	21,124	13,823	41·9	27·4	3,106	147
1878	507,420	20,622	14,157	40·6	27·9	3,285	159
1879	508,048	19,751	12,498	38·8	24·6	2,504	127
1880	509,732	18,912	13,304	37·1	26·1	2,842	150
1881	512,034	19,106	12,916	37·3	25·2	2,745	144
1882	517,904	19,735	13,046	38·1	25·2	2,959	150
1883	523,154	19,911	14,577	38·1	27·9	3,091	155
1884	528,459	20,557	13,942	38·9	26·4	3,094	151
1885	533,817	19,861	13,492	37·2	25·3	3,100	156
1886	539,231	19,862	13,104	36·8	24·3	2,786	140
1887	544,700	19,328	12,135	35·5	22·3	2,676	138
1888	550,226	19,309	11,681	35·1	21·2	2,560	133
1889	555,808	19,503	13,139	35·1	23·6	3,008	154
1890	561,447	19,279	13,374	34·3	23·8	2,880	149
1891	567,143	19,857	14,324	35·0	25·3	2,946	148
1892	669,059*	22,815	15,218	34·1	22·7	3,168	139
1893	677,883	23,173	15,798	34·2	23·3	3,649	157
1894	686,820	22,644	13,673	34·0	19·9	2,937	130
1895	695,876	22,803	16,344	32·8	23·5	3,538	155
1896	705,052	24,029	14,385	34·1	20·4	3,278	136
1897	714,919	23,880	15,727	33·4	22·0	3,826	160
1898	724,349	24,262	15,333	33·5	21·2	3,792	156
1899	733,903	24,249	15,828	33·0	21·6	3,696	152
1900	743,969	24,362	16,393	32·7	22·0	3,778	153
1901	761,925	24,206	16,197	31·8	21·2	3,607	149
1902	762,789	24,722	15,532	32·4	20·4	3,206	129
1903	763,654	25,135	15,073	32·9	19·7	3,663	146
1904	764,521	24,754	15,414	32·4	20·2	3,606	146
1905	765,389	24,316	14,460	31·8	18·9	3,195	131
1906	780,192*	24,560	14,889	31·5	19·1	3,223	131
1907	781,080	24,006	15,659	30·7	20·0	3,116	130
1908	781,969	23,915	15,265	30·6	19·5	3,284	137
1909	782,860	23,140	15,242	29·6	19·5	3,073	133
1910	783,785	22,222	13,395	28·4	17·1	2,694	121
1911	784,680	21,755	13,899	27·7	17·7	3,016	139
1912	785,600	22,044	13,797	28·1	17·6	2,740	124
1913‡	1,029,478*	28,688	17,693	27·9	17·2	3,706	129

\* Extended City.

† For earlier years, see Report for year 1910, Table liii.

‡ Births and Deaths in 1913 are corrected for transfers.



TABLE XLVI. GLASGOW, 1913 — CENSUS POPULATION; BIRTHS; ILLEGITIMATE BIRTHS; and DEATHS at all Ages and at CERTAIN PERIODS of LIFE, and their PROPORTION to the POPULATION in each MUNICIPAL WARD.

MUNICIPAL WARDS.	POPULATION.			BIRTHS.		ILLEGITIMATE BIRTHS.		DEATHS, ALL AGES.		DEATHS AT CERTAIN PERIODS OF LIFE.													
	Without Institutions and Shipping.	Institutions and Shipping.	Total.	Number.	Rate per 1,000 Living.	Number.	Per-centage of Total Births.	Number.	Rate per 1,000 Living.	1	- 2	- 5	- 10	- 15	- 20	- 25	- 35	- 45	- 55	- 65	- 75	75+	Total.
1. Dalmarnock, ...	51,709	797	52,506	1,851	35.8	100	5.4	930	18.0	271	108	66	33	16	20	18	47	49	83	86	77	56	930
2. Calton, ...	34,527	2,128	36,655	1,038	30.1	104	10.0	786	22.8	178	79	63	31	13	13	15	35	59	71	90	83	56	786
3. Mile-end, ...	46,546	472	47,018	1,741	37.4	115	6.6	892	19.2	256	102	62	25	24	22	15	48	59	71	101	66	41	892
4. Whitevale, ...	31,712	1,337	33,049	1,012	31.9	74	7.3	573	18.1	157	53	31	13	4	12	16	25	43	45	72	73	29	573
5. Dennistoun, ...	38,440	2,363	40,803	928	24.1	29	3.1	398	10.4	63	21	19	13	5	10	7	29	29	45	50	63	44	398
6. Springburn, ...	45,168	4,042	49,210	1,637	36.2	71	4.3	682	15.1	191	61	55	18	13	14	13	39	51	44	81	71	31	682
7. Cowlairs, ...	30,194	34	30,228	915	30.3	39	4.3	462	15.3	131	42	27	18	9	15	7	29	23	24	51	55	31	462
8. Townhead, ...	35,371	110	35,481	931	26.3	63	6.8	626	17.7	140	47	33	18	8	14	21	44	31	80	81	64	45	626
9. Blackfriars, ...	19,355	1,048	20,403	634	32.8	99	15.6	388	20.0	82	35	29	7	3	5	15	30	30	37	39	54	22	388
10. Exchange, ...	1,442	523	1,965	28	19.4	9	3.2	33	22.9	7	1	2	...	...	1	...	.5	3	2	4	6	2	33
11. Blythswood, ...	2,363	442	2,805	25	10.6	5	2.0	36	15.2	3	1	...	...	...	1	...	...	3	5	9	11	2	36
12. Broomielaw, ...	6,021	1,777	7,798	181	30.1	27	14.9	143	23.8	28	11	5	2	3	4	5	8	18	26	17	13	3	143
13. Anderston, ...	28,049	1,435	29,484	890	31.7	44	4.9	554	19.8	122	38	35	22	9	10	12	41	50	57	73	52	33	554
14. Sandyford, ...	23,267	442	23,709	516	22.2	49	9.5	434	18.7	87	35	41	9	8	10	8	16	32	38	53	61	36	434
15. Park, ...	22,203	929	23,132	199	9.0	26	13.1	262	11.8	16	2	6	5	4	8	7	10	16	32	46	52	58	262
16. Cowcaddens, ...	33,263	1,313	34,576	1,014	30.5	140	13.8	726	21.8	181	64	48	12	10	4	17	46	61	77	86	77	43	726
17. Woodside, ...	41,207	185	41,392	1,038	25.2	88	8.5	704	17.1	136	55	31	26	9	9	16	56	59	82	83	91	51	704
18. Hutchesontown, ...	39,173	3	39,176	1,300	33.2	86	6.6	694	17.7	173	77	41	28	18	13	11	45	51	63	80	66	28	694
19. Gorbals, ...	33,105	878	33,983	846	25.6	64	7.6	541	16.3	114	42	34	17	8	8	9	35	50	62	65	74	39	541
20. Kingston, ...	32,278	1,012	33,290	834	25.8	53	6.4	590	18.3	119	51	34	17	8	8	9	35	50	75	68	64	52	590
21. Govanhill, ...	37,149	...	37,149	1,116	30.0	45	4.0	491	13.2	115	48	31	13	15	10	11	19	32	48	52	57	40	491
22. Langside, ...	41,809	633	42,442	772	18.5	20	2.6	390	9.3	56	9	10	4	3	9	11	26	35	37	38	78	74	390
23. Pollokshields, ...	18,176	...	18,176	196	10.8	14	7.1	208	11.4	10	3	1	1	1	1	7	15	11	25	33	48	52	208
24. Kelvindale, ...	22,047	887	22,934	283	12.8	14	4.9	188	8.5	11	3	6	...	...	4	3	7	15	16	37	41	44	188
25. Maryhill, ...	40,481	1,995	42,476	1,270	31.4	57	4.5	547	13.5	118	38	27	18	10	14	10	31	41	54	59	69	48	547
26. Kinning Park, ...	12,767	...	12,767	436	34.2	23	5.3	241	18.9	63	31	15	5	1	4	8	22	20	17	22	22	11	241
27. Plantation, ...	28,723	1,093	29,816	820	28.5	43	5.2	508	17.7	102	48	29	17	11	15	13	28	43	55	54	58	35	508
28. Ibrox, ...	20,395	447	20,842	663	32.5	32	4.8	348	17.1	97	36	22	14	11	8	8	25	24	22	32	35	14	348
29. Govan (Central), ...	22,840	...	22,840	829	36.3	35	4.2	454	19.9	135	57	42	13	10	12	15	24	26	34	32	36	18	454
30. Fairfield, ...	21,201	1,937	23,138	723	34.1	27	3.7	267	12.6	51	33	22	5	2	13	7	16	16	30	32	21	19	267
31. Partick (East), ...	22,595	203	22,798	496	22.0	44	8.9	361	16.0	53	32	13	9	2	9	16	25	29	35	56	39	43	361
32. Partick (Central), ...	27,655	11	27,666	902	32.6	50	5.5	392	14.1	100	45	37	7	8	8	3	21	25	33	39	38	28	392
33. Partick (West), ...	21,627	376	22,003	584	27.0	30	5.1	295	13.6	73	28	17	11	6	6	11	20	21	21	33	33	15	295
34. Jordanhill, ...	14,305	122	14,427	347	24.3	9	2.6	160	11.2	34	10	8	9	1	4	4	11	16	13	21	17	12	160
35. Pollokshaws, ...	13,621	...	13,621	390	28.6	21	5.4	201	14.3	35	15	9	6	4	7	6	8	17	23	23	25	23	201
36. Cathcart, ...	14,620	...	14,620	332	22.7	11	3.3	149	10.2	21	5	3	8	3	7	4	8	13	15	17	26	19	149
37. Shettleston & Tollcross, Institutions & Harbour, ...	27,244	606	27,850	912	33.5	38	4.2	421	15.5	114	40	34	17	8	18	13	20	22	31	32	46	26	421
	...	...	...	...	...	...	...	152	...	38	7	17	2	11	9	18	53	103	149	175	185	107	874
City, ...	1,002,648	29,580	1,032,228	28,688	27.8	1,845	6.4	16,949	16.4	3,681	1,413	1,004	469	285	359	390	1,000	1,272	1,677	2,022	2,047	1,330	16,949
+ Inward Transfer Deaths, ...	...	...	...	...	...	...	...	17,693	17.1	3,706	1,419	1,014	486	293	376	429	1,096	1,383	1,808	2,124	2,164	1,395	17,693

TABLE XLVII.—CITY OF GLASGOW FEVER and SMALLPOX HOSPITALS.—NUMBER, AVERAGE RESIDENCE, and COST of TREATMENT OF PATIENTS from 1883-84.

Year.	PATIENTS.			Total Ordinary Expenditure.	Average Daily Cost per Patient.	Average Cost of Treatment per Patient.	Average Cost of Bed per Year.
	Total under Treatment.	Average Daily Number in Hospitals.	Average Residence in Days.				
				£ s. d.	£ s. d.	£ s. d.	£ s. d.
1883-84	3,200	338	41·7	15,772 0 0	0 2 6·6	5 6 4·0	46 10 9·0
1884-85	3,828	355	38·1	19,754 6 7	0 2 11·0	5 11 1·5	53 4 7·0
1885-86	2,154	215	40·3	15,550 6 6	0 3 11·5	7 19 6·2	72 4 9·5
1886-87	2,993	332	43·3	16,504 3 5	0 2 8·7	5 17 11·9	49 14 7·5
1887-88	3,056	327	42·5	17,768 17 10	0 2 11·6	6 6 1·0	54 5 9·6
1888-89	3,459	357	41·7	18,171 15 6	0 2 9·5	5 16 4·9	50 18 11·5
1889-90	3,582	361	36·8	17,899 7 3	0 2 8·6	4 19 11·7	49 11 7·0
1890-91	4,286	460	39·2	21,092 15 11	0 2 6·1	4 18 5·9	45 17 0·7
1891-92	4,850	491	37·1	26,808 9 7	0 2 11·8	5 10 8·2	54 11 10·8
1892-93	6,749	699	37·8	36,263 18 8	0 2 10·1	5 7 5·4	51 17 6·1
1893-94	5,528	624	41·2	34,551 14 3	0 3 0·5	6 5 2·6	55 9 3·5
1894-95	5,482	644	42·9	34,039 19 0	0 2 10·8	6 4 2·2	52 17 3·4
1895-96	5,127	651	46·5	34,892 12 8	0 2 11·1	6 16 1·5	53 11 5·6
1896-97	5,468	627	41·9	34,224 14 9	0 2 11·9	6 5 2·5	54 11 0·5
1897-98	5,687	709	45·5	36,972 18 10	0 2 10·3	6 10 0·3	52 3 5·7
1898-99	5,956	833	45·3	39,261 9 2	0 2 7·0	5 16 11·8	47 2 7·3
1899- 1900 }	6,663	923	44·8	42,020 9 11	0 2 5·9	5 11 10·0	45 10 8·2
1900-01	8,888	1,031	42·3	69,015 8 6	0 3 8·0	7 15 1·9	66 18 9·8
1901-02	6,990	772	40·3	64,265 12 10	0 4 6·7	9 3 10·6	83 5 0·1
1902-03	4,882	592	44·3	53,185 12 10	0 4 11·1	10 17 10·6	89 17 2·8
1903-04	6,799	720	38·8	55,961 2 10	0 4 3·0	8 4 9·6	77 14 7·0
1904-05	5,484	576	36·3	52,558 11 4	0 5 0·0	9 1 5·0	91 5 0·0
1905-06	5,902	620	38·3	52,052 12 7	0 4 7·2	8 16 2·2	83 19 0·0
1906-07	6,803	756	41·1	54,325 19 6	0 3 10·6	7 19 8·5	70 18 4·0
1907-08	9,087	942	40·6	62,659 4 7	0 3 7·6	7 7 7·0	66 10 4·9
1908-09	8,558	1,019	47·9	67,905 6 2	0 3 7·8	8 15 2·0	66 12 10·3
1909-10	10,497	1,243	48·2	77,751 19 6	0 3 5·1	8 5 2·0	62 15 6·0
1910-11	9,329	1,187	56·7	75,967 4 2	0 3 6·1	9 18 10·2	64 0 0·0
1911-12	10,213	1,100	43·5	76,392 11 3	0 3 9·5	8 4 10·7	69 8 11·6
1912-13	8,316	971	47·1	77,964 10 3	0 4 4·8	10 7 3·9	80 5 10·3
1913-14	11,547	1,299	45·6	100,190 18 5	0 4 2·7	9 12 9·4	77 2 4·8

N.B.—The above calculations of cost do not include interest on capital expended in erecting Hospitals.



TABLE XLVIII.—CITY of GLASGOW FEVER and SMALLPOX HOSPITALS.—STATEMENT showing PATIENTS CLASSIFIED as to DISEASE, AVERAGE RESIDENCE, and AVERAGE COST per PATIENT for each YEAR from 1883-84.

Year.	SCARLET FEVER.		ENTERIC FEVER.		WHOOPING-COUGH.		TYPHUS.		MEASLES.		OTHER INFECTIOUS DISEASES.*		SMALLPOX.		ALL OTHER DISEASES.†	
	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.	Average Residence (Days).	Average Cost per Patient.
1888-89	56.7	£ 7 18 3.4	52.5	£ 7 6 6.7	50.1	£ 6 19 10.3	34.2	£ 4 15 5.7	26.6	£ 3 14 3.1	28.3	£ 3 19 0.0	18.5	£ 2 11 7.7	23.9	£ 3 6 8.6
1889-90	54.4	7 7 9.4	50.2	6 16 4.5	53.0	7 3 11.8	34.9	4 14 9.7	30.6	4 3 1.6	21.4	2 18 1.6	24.0	3 5 2.4	22.5	3 1 1.5
1890-91	54.3	6 16 5.1	49.0	6 3 1.3	40.3	5 1 3.0	32.4	4 1 4.9	25.4	3 3 9.8	25.2	3 3 3.8	24.0	3 0 3.6	25.4	3 3 9.8
1891-92	53.7	8 0 2.5	49.3	7 7 0.9	43.8	6 10 10.0	31.3	4 13 4.5	26.2	3 18 2.0	22.9	3 8 3.8	38.0	5 13 4.4	20.8	3 2 0.6
1892-93	50.6	7 3 10.0	49.1	6 19 6.8	42.6	6 1 1.1	32.8	4 13 2.8	26.1	3 14 2.3	20.0	2 16 10.2	30.0	4 5 3.3	20.2	2 17 5.0
1893-94	52.7	8 0 2.0	52.5	7 19 6.7	51.0	7 15 0.0	34.8	5 5 9.2	27.7	4 4 2.2	22.4	3 8 0.9	42.2	6 8 3.0	23.1	3 10 2.5
1894-95	57.4	8 6 3.2	51.8	7 10 0.6	61.0	8 16 8.4	34.8	5 0 9.6	27.7	4 0 2.8	26.2	3 15 10.7	30.4	4 8 0.7	27.1	3 18 6.0
1895-96	57.7	8 8 11.0	57.2	8 7 5.4	54.1	7 18 4.5	33.1	4 16 10.8	29.2	4 5 5.8	31.2	4 11 4.1	30.1	4 8 1.4	29.4	4 6 0.8
1896-97	58.1	8 13 8.0	55.3	8 5 3.6	53.5	7 19 11.0	28.8	4 6 1.1	29.3	4 7 7.0	32.6	4 17 5.4	31.5	4 14 1.9	28.1	4 3 11.9
1897-98	59.9	8 11 2.9	54.7	7 16 4.5	58.1	8 6 1.2	43.1	6 3 2.6	29.2	4 3 5.7	36.3	5 3 9.3	31.0	4 8 7.5	31.3	4 9 5.8
1898-99	58.7	7 11 7.1	55.4	7 3 0.8	54.9	7 1 9.3	35.7	4 12 2.3	29.6	3 16 5.3	33.8	4 7 3.5	...	...	29.6	3 16 5.3
1899-1900	59.3	7 7 11.4	55.7	6 18 11.7	54.4	6 15 8.7	33.4	4 3 4.0	27.8	3 9 5.3	34.9	4 7 0.9	22.6	2 16 4.6	28.6	3 11 4.3
1900-01	58.7	10 15 3.7	56.7	10 7 11.7	51.1	19 7 5.2	33.2	6 1 9.3	26.0	4 15 4.4	38.7	7 1 11.4	28.1	5 3 0.9	30.0	5 10 0.5
1901-02	53.5	12 4 0.6	53.8	12 5 5.0	58.9	3 8 8.2	30.4	6 18 8.1	30.5	6 19 1.6	35.2	8 0 6.9	30.4	6 18 8.1	32.8	7 9 7.5
1902-03	57.9	14 5 1.3	51.6	12 14 1.0	60.8	14 19 4.7	44.0	10 16 8.0	31.6	7 15 7.2	35.5	8 14 9.7	26.1	6 8 6.3	31.4	7 14 7.4
1903-04	55.9	11 17 5.2	56.3	11 19 1.6	49.2	10 8 11.7	33.9	7 3 11.9	27.8	5 18 1.0	33.7	7 3 1.7	29.6	6 5 8.7	27.9	5 18 6.1
1904-05	54.3	13 11 5.0	57.3	14 6 5.0	43.4	10 17 0.0	32.0	8 0 0.0	27.0	6 15 0.0	34.5	8 12 5.0	27.3	6 16 5.0	29.2	7 6 0.0
1905-06	53.9	12 17 11.3	57.6	13 14 11.5	44.7	10 5 7.4	38.4	8 16 7.7	34.0	7 16 4.8	29.3	6 14 9.4	60.6	13 18 9.1	30.1	6 18 5.5
1906-07	50.7	9 16 10.7	49.8	9 13 8.0	47.5	9 4 8.8	80.5	15 12 9.7	27.3	5 6 0.3	43.3	8 8 0.7	74.5	14 9 5.9	13.3	2 11 7.7
1907-08	56.2	10 4 5.0	55.7	10 2 6.1	49.4	8 19 8.6	25.9	4 13 11.6	30.9	5 12 3.0	37.3	6 15 7.5	35.0	6 7 2.7	25.8	4 13 9.8
1908-09	55.3	10 2 0.6	53.9	9 16 9.9	52.8	9 12 11.4	35.7	6 10 2.6	35.2	6 8 5.6	37.9	6 18 6.1	29.0	5 5 10.8	28.7	5 4 7.4
1909-10	59.3	10 3 3.8	56.4	9 13 4.5	67.5	11 11 6.3	51.8	8 17 7.4	31.0	5 6 2.6	42.4	7 5 3.1	...	...	26.4	4 10 5.0
1910-11	61.7	10 16 5.2	59.7	10 9 4.1	57.1	10 0 5.2	31.4	5 10 1.9	37.5	6 11 7.6	57.6	10 2 0.5	46.0	8 1 2.6	27.9	4 17 11.1
1911-12	56.8	10 15 6.2	56.1	10 12 11.7	56.6	10 14 10.0	29.0	5 10 0.7	27.0	5 2 4.2	42.3	8 0 6.3	...	...	27.7	5 5 2.8
1912-13	57.3	12 11 10.8	58.4	12 17 0.1	50.4	11 1 8.1	33.3	7 6 4.1	28.2	6 4 3.1	44.9	9 17 4.6	...	...	28.9	6 7 0.3
1913-14	52.4	11 1 2.2	55.1	11 12 10.6	62.5	13 4 0.2	38.3	8 1 11.3	27.6	5 16 8.3	47.9	10 2 6.0	...	...	27.3	5 15 2.6

\* Includes Erysipelas, Diphtheria, Chickenpox, and Puerperal Fever. † Includes Nursing Mothers, besides persons sent in by mistaken Diagnosis.

§ For earlier years see Report for year 1910, Table lxiii.

N. B.—The above Calculations do not include Interest on Capital expended in erecting Hospitals.



TABLE XLIX.—HOSPITAL BED ACCOMMODATION for INFECTIOUS DISEASES  
in GLASGOW since 1865.

YEAR.	PARISH.			Glasgow Royal Infirmary.	LOCAL AUTHORITY.						Total Beds.	Population in Thousands.	Beds per Thousand.
	City.	Barony.	Govan.		Parlia- mentary Road.	Belvi- dere Fever.	Belvidere Small- pox.	Ruchill.	Shield- hall.	Knights- wood.			
1865	100	120	54	200	136	...	...	...	...	...	610	428	1.4
1866	100	120	54	175	136	...	...	...	...	...	585	438	1.3
1867	...	120	54	100	136	...	...	...	...	...	410	446	0.9
1869	...	120	54	135	136	...	...	...	...	...	445	464	1.0
1870	...	120	54	100	250	250	...	...	...	...	774	471	1.7
1872	...	120	...	100	250	250	...	...	...	...	720	495	1.4
1875	...	...	...	100	250	250	...	...	...	...	600	500	1.2
1876	...	...	...	...	250	250	...	...	...	...	500	502	1.0
1878	...	...	...	...	120	250	150	...	...	...	520	507	1.0
1880	...	...	...	...	120	250	150	...	...	...	520	510	1.0
1881	...	...	...	...	120	370	150	...	...	...	640	512	1.2
1882	...	...	...	...	120	220	150	...	...	...	490	518	1.0
1887	...	...	...	...	120	390	150	...	...	...	660	545	1.2
1893	...	...	...	...	200	390	150	...	...	...	740	678	1.1
1900	...	...	...	...	200	390	150	440	...	...	1180	744	1.6
1901	...	...	...	...	200	390	220	440	...	...	1250	764	1.6
1906	...	...	...	...	...	390	220	440	...	...	1050	836	1.3
1910	...	...	...	...	...	390	220	542	...	...	1152	884	1.3
1913	...	...	...	...	...	390	220	635	120	90	1455*	1032	1.4

\* 193 of these beds set apart for treatment of Pulmonary Tuberculosis.

TABLE L.

# City of Glasgow Fever and Smallpox Hospitals.

## RETURN BY THE MEDICAL OFFICER OF HEALTH Showing Number, Average Residence, and Cost of Treatment of Patients, 1913-1914.

ORDINARY NETT EXPENDITURE, as per Treasurer's Statement <sup>(1)</sup> :—

Fever Hospital, Belvidere, ... ..	£40.252	1	4
Smallpox Hospital, Belvidere, ... ..	842	11	8
Fever Hospital, Ruchill, <sup>(2)</sup> ... ..	45,356	17	7
Fever Hospital, Shieldhall, <sup>(2)</sup> ... ..	7,025	17	11
Fever Hospital, Knightswood, <sup>(2)</sup> ... ..	6,713	9	11
	<u>£100,190</u>	<u>18</u>	<u>5</u>

<sup>(1)</sup> The Ordinary Expenditure on all the Hospitals has been thrown together. There is a certain amount of community in the Expenditure which could not be unravelled without trouble quite out of proportion to any result.

<sup>(2)</sup> Exclusive of Revenue for treating Phthisis Patients.

Average Daily Number of Patients in Fever Hospital, Belvidere, ... ..	514
Average Daily Number of Patients in Smallpox Hospital, Belvidere, ... ..	9
Average Daily Number of Patients in Fever Hospital, Ruchill, ... ..	605
Average Daily Number of Patients in Fever Hospital, Shieldhall, ... ..	103
Average Daily Number of Patients in Fever Hospital, Knightswood, ... ..	68

Average daily number of Patients in Hospitals, ... .. 1,299

	BELVIDERE FEVER HOSPITAL.	SMALLPOX HOSPITAL.	RUCHILL HOSPITAL.	SHIELDHALL HOSPITAL.	KNIGHTSWOOD HOSPITAL.	TOTAL.
Patients remaining at 31st May, 1913, ... ..	523	5	519	88	64	1,199
Patients admitted during 1913-1914, ... ..	4,166	109	4,479	916	678	10,348
Total under Treatment, 1913-1914, ... ..	4,689	114	4,998	1,004	742	11,547
Patients dismissed during 1913-1914, ... ..	4,145	104	4,460	891	658	10,258
Patients remaining at 31st May, 1914, ... ..	544	10	538	113	84	1,289

Average Residence of Patients dismissed, ... .. 45.62 days.

Average Daily Expenditure, ... ..	£274	9	11
Average Daily Cost per Patient, ... ..	0	4	2.70
Average Cost of Treatment per Patient, ... ..	9	13	9.35
Average Cost of Bed per Year, ... ..	77	2	4.84

### STATEMENT SHOWING PATIENTS CLASSIFIED AS TO DISEASE, AVERAGE RESIDENCE OF PATIENTS DISMISSED, AND AVERAGE COST AT THE DAILY RATE GIVEN ABOVE—

DISEASE.	NO. DISMISSED.	AVERAGE RESIDENCE.	AVERAGE COST.
Scarlet Fever, ... ..	4,218	52.35 days.	£11 1 2.15
Enteric Fever, ... ..	215	55.12 „	11 12 10.58
Whooping-cough, ... ..	499	62.49 „	13 4 0.24
Typhus Fever, ... ..	42	38.33 „	8 1 11.33
Measles, ... ..	1,990	27.62 „	5 16 8.33
Other Infectious Diseases, <sup>(3)</sup> ... ..	2,796	47.92 „	10 2 5.98
Smallpox, ... ..	...	...	...
All other Diseases, <sup>(4)</sup> ... ..	498	27.27 „	5 15 2.59
All Cases, ... ..	<u>10,258</u>		

<sup>(3)</sup> Includes Phthisis, Erysipelas, Diphtheria, Chickenpox, Puerperal and Cerebro-Spinal Fevers.

<sup>(4)</sup> Includes Nursing Mothers, besides Persons sent in by mistaken diagnosis.

The above calculations of cost do not include Interest on Capital expended in erecting Hospitals.

A. K. CHALMERS,  
Medical Officer of Health.

## APPENDIX II.

SUPPLEMENTARY CENSUS REPORT, GLASGOW AND AREA  
ADDED TO THE CITY, NOVEMBER, 1912.

The Medical Officer's Report on the Census of 1911, applicable to the area of Glasgow before the extension in November, 1912, was published in 1912, and in order to complete the information for the extended City similar details were extracted for the added area, and are now embodied in the tables appended.

We have thus detailed information regarding the age, sex, civil condition, and housing condition of considerably over a million people, forming almost one-fourth of the total population of Scotland, and collected under one administration.

Corresponding details are presented for each of the Wards of the new area, and afford data which should prove invaluable in the study of social problems.

As on former occasions, the work of extraction had to be carried out in Edinburgh, and I desire to express my renewed indebtedness to the Registrar-General, and to Dr. Craufurd Dunlop, of the Statistical Department, as well as to the Town-Clerk of Edinburgh, Sir Thomas Hunter, and to Mr. Gunn, Collector, and their respective Staffs, for valuable help in various directions.

*Acreage.*—The acreage of the added area extends to 6,208 acres, which added to old Glasgow makes a total area for the extended City of 19,183 acres. The increase in area is thus almost 48 per cent. The added area has been divided into eleven Wards, of which Fairfield contains 1,090 acres, Jordanhill 1,087 acres, and Shettleston and Tollcross 1,081 acres. Partick East, with 153 acres, is the smallest Ward.

The relationship of these Wards, as now constituted, to those existing before annexation and to the landward areas may be described as follows:—

Present Ward.	Wards as before Annexation.
27. Plantation	includes Wards 5 and 6, Govan.
28. Ibrox	„ „ 3 and 4, „
29. Govan Central	„ „ 2 and part of 1, from Robert Street north to the River, between boundary of Ibrox Ward on the East and Harmony Row and Holm Street on the West.
30. Fairfield	„ „ 1, so far as not contained in Govan Central; all 7, and the Landward Area to the West.
31. Partick East	„ „ 1 and 2, Partick.
32. Partick Central	„ „ 3 and 4, „
33. Partick West	„ „ 5 and 6, „
34. Jordanhill	„ districts in County of Renfrew known as Whiteinch, Scotstoun, and Anniesland, and in Dumbarton the district of Temple.
35. Pollokshaws	„ Pollokshaws Burgh and district to the East of its Boundary and West of Carmunnock Road.
36. Cathcart	„ Landward portion of the County of Renfrew, including district of Cathcart.
37. Shettleston and Tollcross	„ the portion of Glasgow Parish east of the old City Boundary and south of the North British Railway.

This description may be represented in the following table:—



WARDS (GLASGOW).	BURGHs.													COUNTY AREAS.			
	Govan.							Partiek.						Pollokshaws.	Lanark.	Renfrew.	Dumbarton.
	1	2	3	4	5	6	7	1	2	3	4	5	6				
27. Plantation, -	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...
28. Ibrox, -	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
29. Govan Central,	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30. Fairfield,	1	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...
31. Partick East, -	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...
32. Partick Central,	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
33. Partick West,	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...
34. Jordanhill, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
35. Pollokshaws, -	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
36. Cathcart, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
37. Shettleston and Tollcross, -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...

*Population.*—The population of the added area numbered 223,991 at the Census, of whom 4,455 were returned as resident in institutions, and 643 in shipping. Plantation has a population of 28,877, Shettleston and Tollcross 26,114, and Partick Central 25,959. Of the smaller Wards, Cathcart and Pollokshaws had 12,766 and 12,967 respectively. The Census population of the whole area now included within the City was 1,008,487.

I am indebted to the Registrar-General for the following table, which shows the populations as at the Censuses of 1901 and 1911 in the various County areas, Burghs, and Parishes in these County areas added to the City:—

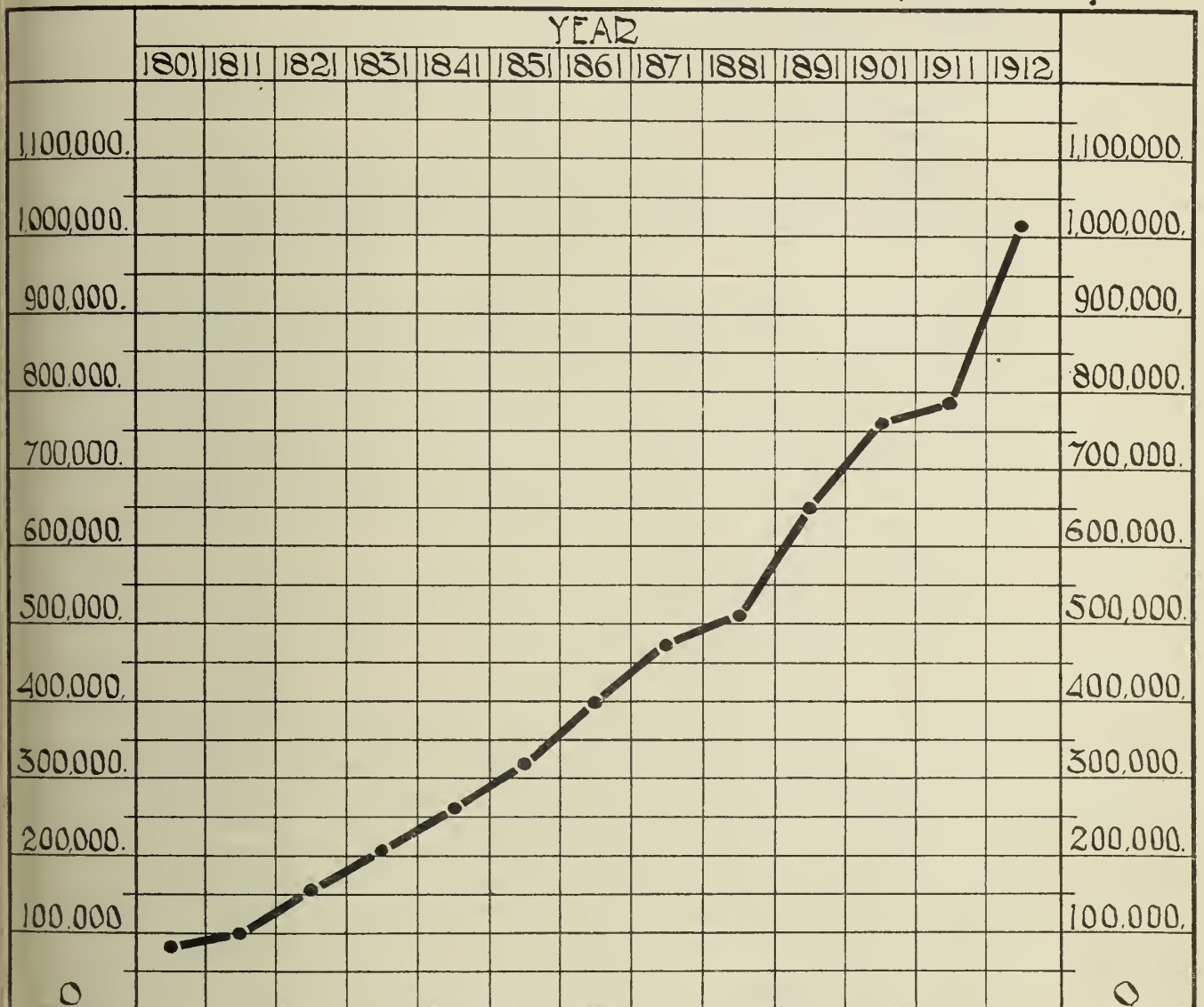
CITY OF GLASGOW EXTENSION, 1912.

POPULATIONS AS AT THE CENSUSES OF 1901 AND 1911 OF THE AREAS ANNEXED.

	1911.			1901.		
	Males.	Females	Both Sexes.	Males.	Females.	Both Sexes.
Glasgow City as Extended, Do. before Ex- tension, ...	492,205	516,282	1,008,487	469,742	484,058	953,800
Annexed Area, ...	381,304	403,192	784,496	380,524	395,070	775,594
	110,901	113,090	223,991	89,218	88,988	178,206
Annexed Area in County of Dumbarton, ...	1,771	1,827	3,598	1,201	1,225	2,426
Lanark, ...	92,370	92,574	184,944	78,097	76,621	154,718
Renfrew, ...	16,760	18,689	35,449	9,920	11,142	21,062
County of Dumbarton— New, or East Kil- patrick Parish, ...	1,771	1,827	3,598	1,201	1,225	2,426
County of Lanark— Glasgow Parish, ...	12,941	13,173	26,114	8,360	8,247	16,607
Govan Parish, ...	45,617	43,988	89,605	42,174	40,000	82,174
Govan Burgh, ...	32,470	34,379	66,849	26,754	27,544	54,298
Partick Burgh, ...	1,342	1,034	2,376	809	830	1,639
Landward, ...	...	...	...	...	...	...
County of Renfrew— Cathcart Parish, ...	5,851	6,950	12,801	2,731	3,241	5,972
Eastwood Parish— Pollokshaws Burgh, ...	6,144	6,788	12,932	5,241	5,942	11,183
Renfrew Parish, ...	4,765	4,951	9,716	1,948	1,959	3,907

The population of Glasgow at each Census during the last century is shown in the following diagram:—

## CHART SHOWING POPULATION OF GLASGOW AT EACH CENSUS DURING THE PAST CENTURY.



(Includes Extensions 1891 and 1912.)

The curve indicating the populations is fairly uniform, increasing from under 100,000 in 1801 to over 1,000,000 in 1911. The rate of increase throughout appears to be constant except for the decennium 1871-81.

The reason for the slackening of the rate of increase over this decade is to be found in the industrial depression which prevailed during its latter years. The decade started at a time when great and increasing prosperity was being experienced throughout the country generally, and unemployment was approaching the minimum of 1872, which is the lowest recorded since 1860. Before the close of the decade the conditions were completely reversed, and unprecedented depression in trade was of course accompanied by the maximum of unemployment, the highest during the past fifty years.

The failure of the Glasgow Bank in 1878 added local intensity to a condition which previously we had simply shared with the country generally.

*Institutional Population.*—Of the 4,455 persons in institutions, almost one-half were resident in Fairfield, Merryflats Poorhouse having 2,029, and Shieldhall Fever Hospital 145. 647 persons in institutions in Plantation were enumerated in two model lodging-houses. The percentage of the population housed in institutions was almost 2 per cent., compared with 3 per cent. in the old Glasgow area. The institutions in the various Wards will be found in Table II. The total institutional population in both areas may be summarised as follows:—

	Males.	Females.	Total.
Old Glasgow, ... ..	16,121	7,697	23,818
Annexed Areas, ... ..	3,012	1,443	4,455
Greater Glasgow, .. ..	19,133	9,140	28,273

*Shipping Population.*—Of the 643 persons resident on board ships, 522 were enumerated in Plantation Ward, which contains Prince's Dock; 94 were in Ibrox; 10 in Fairfield; and the remaining 17 are credited to Partick.

#### FORMULA FOR ESTIMATING NUMBER OF POPULATION IN INTERCENSAL YEARS.

In my 1911 Census Report for Glasgow, at pp. 20 and 21, the various methods employed for estimating the population for the intercensal years was discussed, and need not be repeated. The most reliable method in former years has been that of the inhabited house basis. For this purpose an analysis of the Valuation Rolls of the added areas was made, when it was found that at 30th June, 1911, there were 47,530 houses thereon. The number of houses occupied on the night of the Census was 46,421, or 1,109 less than the number on the Valuation Rolls.

1912—Excess of Houses on Valuation Rolls over Census, ...	2,294
1211—Excess of Houses on Valuation Rolls over Census, ...	1,109
Increase in number of occupied houses for year ending	
30th June, 1912, ... ..	<u>1,185</u>

One-fourth of this number, or 296, has therefore to be deducted from 1,109 in order to find the estimated difference at the date of the Census. This difference, which is 813, may be assumed to be the number of houses that were rented but not occupied at the date of the Census, and represents a percentage of 2·333 of the total houses on the Roll. With this deduction the formula for estimating the population for the areas added to the City is as follows:—

$$[(\text{Tenanted Houses} - 2\cdot333 \text{ per cent.}) \times 4\cdot71539] + \text{Institutions} + \text{Shipping}.$$

Formula for estimating the population of the Old Area of Glasgow—

$$[(\text{Tenanted Houses} - 0\cdot89 \text{ per cent.}) \times 4\cdot65838] + \text{Institutions} + \text{Shipping}.$$

Formula for estimating the population of the Total Area of Greater Glasgow—

$$[(\text{Tenanted Houses} - 1\cdot07188 \text{ per cent.}) \times 4\cdot67101] + \text{Institutions} + \text{Shipping}.$$

In calculating the factor 1·07188 for the latter formula the following figures were taken:—

	1911.	1912.
Houses returned on Valuation Rolls, ... ..	212,058	213,256
Houses occupied at Census, 1911, ... ..	209,485	209,485
Difference, ... ..		<u>3,771</u>
		2,573
		<u>1,198</u>



The increase which occurred during the year ending 30th June, 1912, is 1,198 houses, so that 300 has been assumed as the increase for three months. The difference, therefore, between the rented and occupied houses at the 1911 Census in Greater Glasgow may be taken as  $2,573 - 300 = 2,273$ , or 1·07188 per cent. of the houses returned on the 1911 Valuation Roll.

*Housing.*—The number of inhabited houses in the added area at the Census was 46,421, while 4,850 were returned as empty. Added to the houses in Glasgow before extension, there were thus 209,485 inhabited, and 25,747 empty in the extended City. The percentage empty in each area and in the combined area may be thus stated:—

	HOUSES.		
	Inhabited.	Empty.	Percentage Empty.
Glasgow before extension, ... ..	163,064	20,897	11·4
Added Areas, ... ..	46,421	4,850	9·4
Greater Glasgow, ... ..	209,485	25,747	10·9

*Size of House.*—The inhabited houses in Greater Glasgow contain 537,370 windowed rooms, which is equal to an average of 2·565 rooms per house. This is in excess of the average for old Glasgow, which was 2·550, but less than the average for the added area, which was 2·619. The average house in the added area is thus larger than that in the old City.

The percentages of houses of various sizes will be found in Table V., and may be compared with old and Greater Glasgow in the following summary:—

	Old Glasgow.	Added Areas.	Greater Glasgow.
One apartment houses, ... ..	20·08	14·24	18·78
Two           "           "           "	46·35	51·79	47·53
Three       "           "           "	18·87	19·03	18·92
Four       "           "           "	6·63	4·78	6·22
Five       "           and upwards, ...	8·09	10·16	8·55

In the added area the one-apartment house forms only 14 per cent. of the total, compared with 20 per cent. in old Glasgow. The greatest proportion of one-apartment houses occurs in Pollokshaws Ward, which has almost 24 per cent. In the added area generally there is a larger proportion of houses of two, three, and five apartments and upwards. These differences reflect the requirements of a good working-class population following the movement of the shipbuilding and other industries along the banks of the river, and the inclusion of the landward areas with residential districts.

#### OCCUPANCY OF HOUSES OF VARIOUS SIZES.

The populations occupying the various-sized houses are as follows:—

SIZE OF HOUSE.	Old Glasgow.		Added Areas.		Greater Glasgow.	
	No.	Per cent.	No.	Per cent.	No.	Per cent.
One apartment, ... ..	104,641	13·8	22,028	10·1	126,669	12·9
Two apartments, ... ..	367,341	48·3	116,778	53·3	484,119	49·5
Three   "           "           "	367,341	21·1	45,070	20·6	205,153	21·0
Four   "           "           "	54,238	7·1	11,027	5·0	65,265	6·7
Five   "           and upwards,	73,311	9·7	23,990	11·0	97,301	9·9
	759,614	100·0	218,893	100·0	978,507	100·0

The populations in the above table are exclusive of 29,980 persons resident in institutions and shipping.

The smaller proportion of population occupying one and four-apartment houses in the added area is probably the most striking feature of the comparison, after which is the greater proportion of population in houses of large size. The artisan and shopkeeper predominate; there are fewer very poor, but a larger proportion live in affluence.

At the same time, it is a matter for grave consideration that over 126,000 persons, roughly one-ninth of the population of the whole City, are housed in one-apartment houses, with an average occupancy of over three persons per house. We know from other inquiries the burden which disease imposes on this section of the population, and it is of some significance that the proportion does not tend to become materially reduced. Moreover, to urge, as is not infrequently done, that the remedy lies in transferring this population to houses of larger size, seems to me to leave out of consideration the essential element in the problem. Much more than added house-room is wanted; more food and more clothing at least are quite as essential, and no one has yet suggested that these should be supplied through a similar method. Despite much thoughtlessness and indifferent habits, the problem seems to me to be wider than both. It lies indeed outside the sphere of preventive medicine, and probably also of municipal action.

Details of the proportion of population in the various sizes of house in each of the new Wards will be found in Table V.

*Persons per Room.*—The average number of persons per room in the various Wards is detailed in Table VI., and may be compared with the old and present area:—

Size of House.				Old Glasgow.	Added Area.	Greater Glasgow.
One apartment,	...	...	...	3.196	3.333	3.219
Two apartments,	...	...	...	4.863	4.857	4.862
Three	„	...	...	5.202	5.102	5.480
Four	„	...	...	5.014	4.972	5.007
Five	„	and upwards,	...	5.556	5.084	5.432
				4.658	4.715	4.671

In all cases, save the one-apartment, there is less pressure in house room in the added area. In this respect the experience of the 1891 extension is repeated, for the one-apartment house alone of the area then added had a larger average number of occupants than in the Old Area. Whether this is owing to a larger size of room, or to a less rapid insistence on the cubic space standard for each occupant, can only be determined by an extension of the system of ticketing.

*Density of Population.*—The number of persons per acre was 60 in the old City, and 36 in the added area. The contrast has little value, as 5 of the 11 Wards into which the added area has been divided are on the outskirts, and contain a large proportion of unbuilt ground. In my former Report\* a comparison was made of the central and circumferential areas to show that the central Wards had a density of 115 per acre, and the circumferential Wards 39. In the added area the average does not even reach this latter figure; while among burghal Wards, Partick East, with 142 persons per acre, has a density greater than the average of the central Wards of old Glasgow. On the other hand, low densities are recorded in Jordanhill, 12; Cathcart, 17; Fairfield, 20; and Shettleston and Tollcross, 24. The true standard of density is not the number of persons who may be distributed

\* Census 1911 Report by the Medical Officer of Health, page 23.

unequally over an area, but the three or more persons who must occupy a room and carry on all the functions of life therein. In comparison with other large populations elsewhere, the density of the extended city of 53 persons per acre is in excess of the other large towns in Scotland, Dundee being next with 35, Edinburgh 29, and Aberdeen 26. Among the principal towns in England, Liverpool has 45, Manchester 33, and Greater Birmingham only 19 to the acre.

DISTRIBUTION OF POPULATION ACCORDING TO SEX, AGE, AND  
CONJUGAL CONDITION.

*Sex Distribution.*—Of the population enumerated in the added area, 110,901 were males, and 113,090 females, making a total for Greater Glasgow of 492,205 males and 516,282 females. There were relatively fewer females in the population of the added area, and the sex distribution per 100,000 persons in the respective areas is as follows:—

	Males.	Females.
Old Glasgow Area, ... ..	48,605	51,395
Added Area, ... ..	49,512	50,488
Greater Glasgow, ... ..	48,806	51,194

If the number of males in the population be stated as 100, the following proportions are found:—

	Males.	Females.
Old Glasgow Area, ... ..	100	106
Added Area, ... ..	100	102
Greater Glasgow, ... ..	100	105

*Age Distribution.*—The percentages of males and females at several age-periods in the Wards of the added area and in the City as a whole are contained in Table III. When the sex constitution of the population at the various age-periods is considered, some considerable differences are shown to exist between old Glasgow and the added area. In every age-period in the following table, except 75+, the proportion of females in the added area is less than in old Glasgow, the greatest difference occurring at the age-period 20-25. Only slight variations, however, are observed when the whole population of Greater Glasgow is compared with old Glasgow.

GLASGOW AND ADDED AREAS, 1911.—PROPORTION OF MALE TO FEMALE POPULATION  
AT SEVERAL AGE PERIODS.

Age Group.	MALES.	FEMALES.		
		Old Glasgow.	Added Area.	Greater Glasgow.
— 5	100	100	98	99
— 10	100	100	99	100
— 15	100	102	101	101
— 20	100	105	99	104
— 25	100	113	102	111
— 35	100	108	106	107
— 45	100	101	99	100
— 55	100	105	98	104
— 65	100	109	105	108
— 75	100	138	132	137
75+	100	197	201	198



# AGE DISTRIBUTION.

The following table gives the proportion of persons living at various ages:—

Age.	Old Glasgow.	Annexed Areas.	Greater Glasgow.
0—5	11·24	12·07	11·42
5—10	10·37	11·26	10·57
10—15	9·72	10·28	9·84
15—20	9·61	9·45	9·58
20—25	9·58	8·91	9·43
25—35	17·28	16·93	17·20
35—45	13·26	13·41	13·30
45—55	9·43	8·90	9·31
55—65	5·73	5·20	5·61
65 and upwards	3·78	3·59	3·74

In the added area the proportion of persons at age-periods under 15 years exceeds that of the old area, but thereafter, except during the age-period 35-45, the proportions are reversed. This preponderance of persons at younger ages in the added area is a result of the higher birth-rates obtaining in it.

## AGE DISTRIBUTION OF POPULATION OCCUPYING HOUSES OF DIFFERENT SIZES.

In Tables VIII. (1) to (11) the details of age distribution of the population in houses of different sizes are given, and the following table shows the age and sex distribution per 100,000 persons in each size of house. On comparing this table with a similar one in the Census Report for old Glasgow, it will be found that the increase in the earlier ages is associated with an increase in the proportion of children between one and five years of age in one-apartment houses. The proportion of infants under one year, however, shows little alteration.

GREATER GLASGOW, CENSUS 1911.—TABLE SHOWING COMPARATIVE AGE DISTRIBUTION OF POPULATION ACCORDING TO SIZE OF HOUSE.

AGES.	PER 100,000 PERSONS LIVING IN EACH.									
	MALES.					FEMALES.				
	Whole City.	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments and upwards.	Whole City.	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments and upwards.
— 1	1,203	2,362	1,461	683	339	1,182	2,382	1,440	608	359
— 5	4,524	7,239	5,670	2,814	1,649	4,511	7,218	5,617	2,867	1,730
— 10	5,285	5,033	6,709	4,494	2,793	5,285	5,053	6,747	4,397	2,800
— 15	4,887	3,078	5,760	5,369	3,608	4,956	3,176	5,719	5,571	3,768
— 20	4,701	2,153	4,688	6,313	4,919	4,876	2,644	4,475	6,255	6,512
— 25	4,475	3,555	3,720	5,811	5,389	4,953	5,819	3,535	5,550	7,863
— 35	8,317	11,149	8,018	7,356	7,272	8,887	11,667	8,075	7,646	11,286
— 45	6,634	5,874	7,094	5,952	5,367	6,663	5,728	6,752	6,571	7,911
— 55	4,567	3,147	4,025	5,324	5,074	4,742	3,900	3,837	5,875	7,057
— 65	2,703	1,859	1,967	3,276	3,797	2,912	2,836	2,122	3,493	4,682
— 75	1,240	985	851	1,308	1,845	1,694	2,164	1,237	1,688	2,585
75 +	268	243	162	275	468	531	737	317	500	916
Not stated,	2	...	1	1	4	2	1	...	3	7
TOTALS,	48,806	46,676	50,126	48,976	42,523	51,194	53,324	49,874	51,024	57,477

AGE DISTRIBUTION OF POPULATION IN OLD AND NEW AREAS OF  
CITY COMPARED.

The following table emphasises what has been said above as to the increased number of children and younger people in the added area. In the age-period -25, however, the proportion in the two areas alters, and the old City then shows the greater proportions:—

CENSUS 1911.—TABLE SHOWING COMPARATIVE AGE AND SEX DISTRIBUTION OF POPULATION IN OLD GLASGOW, ANNEXED AREA AND GREATER GLASGOW RESPECTIVELY PER 1,000 PERSONS LIVING IN EACH.

AGE GROUP.	MALES.			FEMALES.		
	Old Glasgow.	Annexed Area.	Greater Glasgow.	Old Glasgow.	Annexed Area.	Greater Glasgow.
- 5	5,621	6,098	5,727	5,614	5,966	5,693
- 10	5,176	5,667	5,285	5,196	5,596	5,285
- 15	4,820	5,124	4,887	4,899	5,155	4,956
- 20	4,685	4,756	4,701	4,928	4,694	4,876
- 25	4,494	4,407	4,475	5,081	4,502	4,953
- 35	8,344	8,223	8,317	8,938	8,710	8,887
- 45	6,606	6,735	6,634	6,659	6,676	6,663
- 55	4,590	4,488	4,567	4,837	4,410	4,742
- 65	2,749	2,542	2,703	2,985	2,657	2,912
- 75	1,250	1,203	1,240	1,725	1,586	1,694
75 +	270	269	270	533	536	533
Totals,	48,605	49,512	48,806	51,395	50,488	51,194

CONJUGAL CONDITION.

The following summary showing the civil status of the population of Greater Glasgow has been taken from the details in Table IX.

GREATER GLASGOW.—CENSUS, 1911.

TABLE SHOWING SEX DISTRIBUTION AND CIVIL CONDITION OF POPULATION.

	NUMBER OF POPULATION.			PERCENTAGE.		
	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.
Single, -	313,357	311,696	625,053	63·7	60·5	62·0
Married, -	161,098	166,038	327,136	32·7	32·2	32·4
Widowed, -	17,750	38,548	56,298	3·6	7·3	5·6
Total, -	492,205	516,282	1,008,487	100·0	100·0	100·0

Owing to the age constitution of the population and the fact that marriage does not affect the population under 15 years of age, the following table is introduced, and gives a more accurate idea of the various percentages:—

GREATER GLASGOW.—CENSUS, 1911.

TABLE SHOWING PERCENTAGE OF POPULATION OF EACH SEX AT VARIOUS AGE-GROUPS ABOVE FIFTEEN YEARS, ACCORDING TO MARRIAGE.

AGE.	MALE 15+			FEMALE 15+		
	Single.	Married.	Widowed.	Single.	Married.	Widowed.
15—20	99·7	0·3	...	98·6	1·4	...
—25	87·6	12·3	0·1	77·0	22·8	0·2
—35	47·4	51·4	1·2	40·5	58·0	1·5
—45	22·9	73·3	3·8	20·6	73·3	6·1
—55	14·9	76·4	8·7	15·8	67·0	17·2
—65	10·9	72·2	16·9	12·3	51·9	35·8
—75	8·6	58·8	32·6	11·9	28·6	59·5
75+	7·1	39·6	53·3	13·9	9·7	76·4
Not stated,	81·0	13·0	6·0	58·4	20·8	20·8
Total, -	46·1	48·5	5·4	42·4	46·8	10·8



TABLE I.—GLASGOW.—ACREAGE, STATEMENT OF POPULATION, HOUSES (INHABITED AND EMPTY), WINDOWED ROOMS (TOTAL NUMBER AND NUMBER PER HOUSE), PERSONS PER ACRE, PER HOUSE, AND PER ROOM, AT THE CENSUS PERIOD, 1911, IN EACH MUNICIPAL WARD.

MUNICIPAL WARDS.	Acreage.	POPULATION.				HOUSES.		WINDOWED ROOMS.			PERSONS PER		
		Without Institutions and Shipping.	Institu- tions.	Shipping.	Total Population.	Inhabited.	Empty.	Inhabited Houses.	Institu- tions.	Per Inhabited House.	Acre (including Institutions and Shipping).	House (excluding Institutions and Shipping).	Room.
GLASGOW (before extension),	12,975	759,614	23,818	1,064	784,496	163,064	20,897	415,802	8,040	2,550	60	4,658	1,827
27. Plantation, - - -	335	27,708	647	522	28,877	5,971	626	14,087	120	2,359	86	4,640	1,967
28. Ibrox, - - -	328	19,321	343	94	19,758	4,001	567	9,792	139	2,447	60	4,829	1,973
29. Govan (Central), - - -	289	21,774	...	...	21,774	4,336	472	8,914	...	2,056	75	5,022	2,443
30. Fairfield, - - -	1,090	19,388	2,174	10	21,572	4,111	487	8,679	429	2,111	20	4,716	2,234
31. Partick (East), - - -	153	21,510	223	...	21,733	4,588	475	15,136	36	3,299	142	4,688	1,421
32. " (Central), - - -	282	25,948	...	11	25,959	5,732	697	13,895	...	2,424	92	4,527	1,867
33. " (West), - - -	571	18,810	341	6	19,157	3,934	433	12,112	131	3,079	34	4,781	1,553
34. Jordanhill, - - -	1,087	13,211	103	...	13,314	2,724	258	8,719	96	3,201	12	4,850	1,515
35. Pollokshaws, - - -	239	12,967	...	...	12,967	2,867	136	6,371	...	2,222	54	4,523	2,035
36. Cathcart, - - -	753	12,766	...	...	12,766	2,859	265	11,958	...	4,183	17	4,465	1,068
37. Shettleston and Tollcross,	1,081	25,490	624	...	26,114	5,298	434	11,905	195	2,247	24	4,811	2,141
Annexed Area, - - -	6,208	218,893	4,455	643	223,991	46,421	4,850	121,568	1,146	2,619	36	4,715	1,801
GREATER GLASGOW, -	19,183	978,507	28,273	1,707	1,008,487	209,485	25,747	537,370	9,186	2,565	53	4,671	1,821

TABLE II.

CENSUS, 1911.—GLASGOW.—NUMBER OF INMATES AND WINDOWED ROOMS IN INSTITUTIONS IN EACH MUNICIPAL WARD.

MUNICIPAL WARDS.	NAME OF INSTITUTION.	NUMBER OF INMATES.			Windowed Rooms.
		Males.	Females.	Total.	
<b>GLASGOW</b> (before extension), - }	- - - - -	16,121	7,697	23,818	8,040
27. Plantation, -	{ Plantation Model Lodging-house, - -	213	...	213	11
	{ Rutland, " " - -	432	2	434	109
28. Ibrox, - -	{ Napier Lodging-house, - -	343	...	343	139
30. Fairfield, -	{ Shieldhall Fever Hospital, - -	54	91	145	77
	{ Govan Poorhouse, - -	1,177	852	2,029	352
31. Partick (East), -	{ Norfolk House, - -	223	...	223	36
33. " (West), -	{ Jordan House, - -	337	4	341	131
34. Jordanhill, -	{ Knightswood Fever Hospital, - -	31	72	103	96
37. Shettleston and Toll-cross, - -	{ Parkhead Reformatory for Boys, - -	202	5	207	60
	{ Convent of Good Shepherd, &c., - -	...	417	417	135
Annexed Area, -	- - - - -	3,012	1,443	4,455	1,146
<b>GREATER GLASGOW,</b> -	- - - - -	19,133	9,140	28,273	9,186

**TABLE III.—CENSUS, 1911.—GLASGOW.—PROPORTION PER CENT. LIVING AT VARIOUS PERIODS OF LIFE OF THE TOTAL POPULATION  
(EXCLUSIVE OF THE INMATES OF INSTITUTIONS AND SHIPPING) IN EACH MUNICIPAL WARD, AND OF THE TOTAL INMATES  
OF INSTITUTIONS AND SHIPPING IN THE CITY AND ADDED AREAS.**

MUNICIPAL WARDS,  GLASGOW (before extension)	ALL AGES.		UNDER 1 YEAR.			1—4			5—9			10—14			15—19			20—24		
	Males.	Females.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
Without Institutions and Shipping, ...	47 936	52 064	1 204	1 202	2 406	4 524	4 533	9 057	5 266	5 292	10 558	4 909	4 981	9 890	4 735	5 008	9 743	4 424	5 100	9 524
Including Institutions and Shipping, ...	48 605	51 395	1 177	1 175	2 352	4 444	4 440	8 884	5 176	5 196	10 372	4 820	4 899	9 719	4 685	4 928	9 613	4 494	5 082	9 576
27. Plantation, ...	49 054	50 946	1 346	1 335	2 681	4 768	4 681	9 449	5 803	5 630	11 433	5 027	5 096	10 123	4 630	4 591	9 221	4 125	4 526	8 651
28. Hbrox, ...	50 008	49 992	1 221	1 175	2 396	4 834	5 005	9 839	5 807	5 673	11 480	5 548	5 512	11 060	5 108	4 860	9 968	4 612	3 975	8 587
29. Govan (Central), ...	50 850	49 150	1 419	1 359	2 778	5 318	5 190	10 508	6 296	5 915	12 211	5 823	6 218	12 041	5 203	5 038	10 241	4 597	4 450	9 047
30. Fairfield, ...	50 619	49 381	1 444	1 367	2 811	5 106	4 936	10 042	5 942	5 833	11 775	5 173	5 132	10 305	4 967	4 400	9 367	5 039	4 359	9 398
31. Partick (East), ...	46 039	53 961	0 888	0 869	1 757	3 594	3 533	7 127	4 482	4 542	9 024	4 612	4 788	9 400	4 719	5 156	9 875	4 965	5 746	10 711
32. " (Central), ...	49 175	50 825	1 330	1 426	2 756	5 083	5 145	10 228	5 615	5 758	11 373	5 021	4 671	9 692	4 482	4 285	8 767	4 312	4 247	8 559
33. " (West), ...	49 070	50 930	1 488	1 026	2 514	5 173	4 705	9 878	5 678	5 928	11 606	5 056	5 231	10 277	4 588	4 588	9 176	4 014	4 349	8 363
34. Jordanhill, ...	49 239	50 761	1 135	0 969	2 104	4 716	4 807	9 523	6 192	5 828	12 020	5 359	5 231	10 590	4 928	4 829	9 757	4 473	4 201	8 674
35. Pollokshaws, ...	47 497	52 503	1 334	1 234	2 568	4 843	5 028	9 871	5 823	6 177	12 000	5 329	5 344	10 673	4 581	4 920	9 501	4 118	4 512	8 630
36. Cathcart, ...	45 715	54 285	1 026	1 026	2 052	4 183	3 979	8 162	4 900	4 786	9 776	4 442	4 551	8 993	4 058	5 256	9 314	3 501	5 476	8 977
37. Shettleston and Tollcross, ...	49 976	50 024	1 589	1 412	3 001	5 696	5 728	11 424	6 532	6 238	12 770	5 594	5 547	11 141	4 822	4 684	9 506	4 166	4 249	8 415
Institutions, ...	67 609	32 391	0 494	0 449	0 943	1 280	1 324	2 604	1 706	2 245	3 951	2 312	2 671	4 983	4 983	2 896	7 879	3 345	3 771	7 116
Shipping, ...	95 936	4 044	0 156	0 311	0 467	0 156	0 311	0 467	0 156	0 311	0 467	...	...	...	4 977	...	4 977	20 995	0 467	21 462
Annexed Area (without Institutions and Shipping), ...	49 007	50 993	1 313	1 227	2 540	4 890	4 840	9 730	5 764	5 680	11 444	5 196	5 221	10 417	4 751	4 745	9 496	4 380	4 529	8 909
Annexed Area (including Institutions and Shipping), ...	49 512	50 488	1 293	1 209	2 502	4 805	4 757	9 562	5 667	5 596	11 263	5 124	5 155	10 279	4 756	4 694	9 450	4 407	4 502	8 909
<b>GREATER GLASGOW—</b> Without Institutions and Shipping, ...	48 175	51 825	1 228	1 208	2 436	4 606	4 602	9 208	5 377	5 379	10 756	4 973	5 035	10 008	4 739	4 949	9 688	4 414	4 972	9 386
Including Institutions and Shipping, ...	48 806	51 194	1 203	1 182	2 385	4 524	4 511	9 035	5 285	5 285	10 570	4 887	4 956	9 843	4 701	4 876	9 577	4 475	4 953	9 428



TABLE III.—Continued.

MUNICIPAL WARDS.	25—34			35—44			45—54			55—64			65—74			75 AND UPWARDS.			NOT STATED.		
	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.	Males.	Females.	Totals.
GLASGOW (before extension) (Without Institutions and Shipping, ... Including Institutions and Shipping, ...)	8 183	9 033	17 216	6 367	6 777	13 144	4 367	4 913	9 280	2 569	3 007	5 576	1 140	1 708	2 848	0 247	0 508	0 755	0 001	0 002	0 003
27. Plantation, ...	8 244	8 738	16 982	6 446	6 720	13 166	4 468	4 739	9 207	2 739	2 844	5 583	1 245	1 602	2 847	0 209	0 444	0 653	0 004	...	0 004
28. Ibrox, ...	7 853	8 422	16 275	6 842	6 563	13 405	4 353	4 140	8 493	2 474	2 753	5 227	1 108	1 459	2 567	0 248	0 455	0 703	...	...	...
29. Govan (Central), ...	7 763	7 234	14 997	6 252	5 745	11 997	4 478	4 106	8 584	2 388	2 168	4 556	1 148	1 405	2 553	0 165	0 317	0 482	...	0 005	0 005
30. Fairfield, ...	8 346	8 706	17 052	6 566	6 349	12 915	4 307	4 355	8 660	2 388	2 269	4 652	1 155	1 316	2 471	0 191	0 361	0 552	...	...	...
31. Partick (East), ...	7 684	9 596	17 280	6 211	7 485	13 696	4 463	5 756	10 219	2 864	3 756	6 620	1 246	1 981	3 227	0 302	0 744	1 046	0 009	0 009	0 018
32. " (Central), ...	8 973	9 484	18 457	6 875	6 937	13 812	4 081	4 201	8 282	2 181	2 517	4 698	0 964	1 649	2 613	0 258	0 505	0 763	...	...	...
33. " (West), ...	8 464	9 244	17 708	6 624	7 193	13 817	4 184	4 110	8 294	2 488	2 557	5 045	1 058	1 419	2 477	0 255	0 579	0 834	...	0 011	0 011
34. Jordanhill, ...	7 827	8 630	16 457	6 812	7 456	14 268	4 511	4 254	8 765	1 976	2 422	4 398	0 984	1 491	2 475	0 318	0 583	0 901	0 008	...	0 008
35. Pollokshaws, ...	7 635	8 692	16 327	6 131	6 501	12 632	4 226	4 527	8 753	2 128	2 954	5 082	1 041	1 843	2 884	0 308	0 771	1 079	...	...	...
36. Cathcart, ...	7 457	10 238	17 695	7 081	8 021	15 102	4 676	5 115	9 791	2 601	2 977	5 578	1 222	1 998	3 220	0 478	0 862	1 340	...	...	...
37. Shettleston and Tolleross, ...	8 003	8 399	16 402	6 461	6 203	12 664	4 037	3 823	7 862	2 024	2 142	4 166	0 887	1 244	2 131	0 157	0 353	0 510	0 008	...	0 008
Institutions, ...	11 134	4 647	15 781	13 781	3 165	16 946	11 537	3 300	14 837	9 226	3 322	12 548	6 599	3 053	9 652	1 190	1 526	2 716	0 022	0 022	0 044
Shipping, ...	34 535	1 866	36 401	18 196	0 622	18 818	11 353	0 156	11 509	4 510	...	4 510	0 622	...	0 622	...	...	...	...	...	...
Annexed Area (without Institutions and Shipping), ...	8 086	8 812	16 898	6 557	6 765	13 322	4 324	4 445	8 769	2 400	2 651	5 051	1 095	1 561	2 656	0 248	0 515	0 763	0 003	0 002	0 005
Annexed Area (including Institutions and Shipping), ...	8 223	8 710	16 933	6 735	6 676	13 411	4 488	4 410	8 898	2 542	2 657	5 199	1 203	1 586	2 789	0 266	0 533	0 799	0 003	0 003	0 006
GREATER GLASGOW— (Without Institutions and Shipping, ... Including Institutions and Shipping, ...)	8 161	8 985	17 146	6 410	6 775	13 185	4 358	4 807	9 165	2 531	2 927	5 458	1 130	1 675	2 805	0 247	0 509	0 756	0 001	0 002	0 003
Shipping, ...	8 317	8 887	17 204	6 634	6 663	13 297	4 567	4 742	9 309	2 703	2 912	5 615	1 240	1 694	2 934	0 268	0 531	0 799	0 002	0 002	0 004

TABLE IV.—CENSUS, 1911.—GLASGOW.—INHABITANTS GROUPED ACCORDING TO THE SIZE OF THEIR HOUSES (EXCLUSIVE OF INSTITUTIONS), ALSO NUMBER OF WINDOWED ROOMS AND EMPTY HOUSES IN EACH MUNICIPAL WARD.

MUNICIPAL WARDS.	1 APARTMENT.		2 APARTMENTS.		3 APARTMENTS.		4 APARTMENTS.		5 APARTMENTS AND UPWARDS.		TOTAL INHABITED HOUSES.	TOTAL INHABITANTS.	WINDOWED ROOMS.	EMPTY HOUSES.
	No.	Inhabi- tants.	No.	Inhabi- tants.	No.	Inhabi- tants.	No.	Inhabi- tants.	No.	Inhabi- tants.				
<b>GLASGOW</b> (before extension),	32,742	104,641	75,536	367,341	30,775	160,083	10,817	54,238	13,194	73,311	163,064	759,614	415,802	20,897
27. Plantation, - - -	935	2,920	3,338	16,054	995	5,069	352	1,744	351	1,921	5,971	27,708	14,087	626
28. Ibrox, - - -	467	1,546	2,231	11,109	923	4,567	195	1,078	185	1,021	4,001	19,321	9,792	567
29. Govan (Central), - -	961	3,225	2,631	14,036	500	3,157	100	551	144	805	4,336	21,774	8,914	472
30. Fairfield, - - -	632	2,044	2,728	13,052	595	3,393	58	336	98	563	4,111	19,388	8,679	487
31. Partick (East), - -	387	1,282	1,328	6,426	1,715	8,163	548	2,609	610	3,030	4,588	21,510	15,136	475
32. " (Central), - - -	819	2,883	3,268	14,793	1,076	5,335	219	1,183	350	1,754	5,732	25,948	13,895	697
33. " (West), - - -	363	1,184	1,999	10,019	636	3,027	259	1,148	677	3,432	3,934	18,810	12,112	433
34. Jordanhill, - - -	146	533	1,355	6,321	390	2,272	34	174	799	3,911	2,724	13,211	8,719	258
35. Pollokshaws, - - -	681	2,193	1,368	6,729	599	2,956	119	556	100	533	2,867	12,967	6,371	136
36. Cathcart, - - -	79	210	1,007	4,079	530	2,506	115	514	1,128	5,457	2,859	12,766	11,958	265
37. Shettleston and Tollcross, -	1,139	4,008	2,789	14,160	874	4,625	219	1,134	277	1,563	5,298	25,490	11,905	434
Annexed Area, - - -	6,609	22,028	24,042	116,778	8,833	45,070	2,218	11,027	4,719	23,990	46,421	218,893	121,568	4,850
<b>GREATER GLASGOW,</b> - -	39,351	126,669	99,578	484,119	39,608	205,153	13,035	65,265	17,913	97,301	209,485	978,507	537,370	25,747

TABLE V.—CENSUS, 1911.—GLASGOW.—PROPORTION PER CENT. OF HOUSES OF VARIOUS SIZES, AND OF THE TOTAL POPULATION DWELLING IN THEM.

MUNICIPAL WARDS.	1 APARTMENT.		2 APARTMENTS.		3 APARTMENTS.		4 APARTMENTS.		5 APARTMENTS AND UPWARDS	
	Houses.	Inhabitants.	Houses.	Inhabitants.	Houses.	Inhabitants.	Houses.	Inhabitants.	Houses.	Inhabitants.
<b>GLASGOW</b> (before extension),	20·08	13·776	46·33	48·359	18·87	21·074	6·63	7·140	8·09	9·651
27. Plantation, - - -	15·66	10·538	55·90	57·941	16·66	18·294	5·90	6·294	5·88	6·933
28. Ibrox, - - -	11·67	8·002	55·77	57·497	23·07	23·638	4·87	5·579	4·62	5·284
29. Govan (Central), - -	22·16	14·811	60·68	64·462	11·53	14·499	2·31	2·531	3·32	3·697
30. Fairfield, - - -	15·37	10·543	66·37	67·320	14·47	17·500	1·41	1·733	2·38	2·904
31. Partick (East), - -	8·44	5·960	28·94	29·874	37·38	37·951	11·94	12·129	13·30	14·086
32. " (Central), - - -	14·29	11·111	57·01	57·010	18·77	20·560	3·82	4·559	6·11	6·760
33. " (West), - - -	9·23	6·295	50·81	53·264	16·17	16·092	6·58	6·103	17·21	18·246
34. Jordanhill, - - -	5·36	4·035	49·74	47·846	14·32	17·198	1·25	1·317	29·33	29·604
35. Pollokshaws, - - -	23·75	16·912	47·72	51·894	20·89	22·796	4·15	4·288	3·49	4·110
36. Cathcart, - - -	2·76	1·645	35·22	31·952	18·54	19·630	4·02	4·026	39·46	42·747
37. Shettleston and Tollcross, - -	21·50	15·724	52·64	55·551	16·50	18·141	4·13	4·449	5·23	6·132
Annexed Area, - - -	14·24	10·063	51·79	53·349	19·03	20·590	4·78	5·038	10·16	10·960
<b>GREATER GLASGOW,</b>	18·78	12·945	47·53	49·475	18·92	20·966	6·22	6·670	8·55	9·944



TABLE VI.—CENSUS, 1911.—GLASGOW.—AVERAGE NUMBER OF INMATES PER HOUSE OF EACH SIZE AND OF ALL SIZES, ALSO PERCENTAGE OF EMPTY HOUSES.

MUNICIPAL WARDS.	1 Apartment.	2 Apart- ments.	3 Apart- ments.	4 Apart- ments.	5 Apart- ments and upwards.	All Sizes.	Percentage of Empty Houses.
<b>GLASGOW</b> (before extension), - -	3·196	4·863	5·202	5·014	5·556	4·658	11·4
27. Plantation, - - - -	3·123	4·809	5·094	4·955	5·473	4·640	9·5
28. Ibrox, - - - -	3·310	4·979	4·948	5·528	5·519	4·829	12·4
29. Govan (Central), - - - -	3·356	5·335	6·314	5·510	5·590	5·022	9·8
30. Fairfield, - - - -	3·234	4·784	5·703	5·793	5·745	4·716	10·6
31. Partick (East), - - - -	3·313	4·839	4·760	4·761	4·967	4·688	9·4
32. „ (Central), - - - -	3·520	4·527	4·958	5·402	5·011	4·527	10·8
33. „ (West), - - - -	3·262	5·012	4·759	4·432	5·069	4·781	9·9
34. Jordanhill, - - - -	3·651	4·665	5·826	5·118	4·895	4·850	8·7
35. Pollokshaws, - - - -	3·220	4·919	4·935	4·672	5·330	4·523	4·5
36. Cathcart, - - - -	2·658	4·051	4·728	4·470	4·838	4·465	8·5
37. Shettleston and Tollcross, - -	3·519	5·077	5·292	5·178	5·643	4·811	7·6
Annexed Area, - - - -	3·333	4·857	5·102	4·972	5·084	4·715	9·5
<b>GREATER GLASGOW</b> , - -	3·219	4·862	5·180	5·007	5·432	4·671	10·9

TABLE VII.—CENSUS, 1911.—GLASGOW.—PERCENTAGE OF CHILDREN UNDER 1 AND UNDER 5 YEARS, AND OF FEMALES 15-45 YEARS, TO TOTAL POPULATION.

WARD.	PERCENTAGE CHILDREN.			PERCENTAGE.	PERCENTAGE.
	—1 YEAR.	1—5	TOTAL. 0—5	ALL FEMALES. 15—45	MARRIED FEMALES. 15—45
<b>GLASGOW</b> (before extension) { Without Institutions and Shipping, - - -	2·406	9·057	11·463	25·918	11·359
{ Including Institutions and Shipping, - - -	2·352	8·884	11·236	25·606	11·092
27. Plantation, - - - -	2·681	9·449	12·130	24·575	12·975
28. Ibrox, - - - -	2·396	9·839	12·235	23·820	11·661
29. Govan (Central), - - - -	2·778	10·508	13·286	22·467	11·629
30. Fairfield, - - - -	2·811	10·042	12·853	23·814	12·461
31. Partick (East), - - - -	1·757	7·127	8·884	27·983	9·447
32. „ (Central), - - - -	2·756	10·228	12·984	24·953	13·049
33. „ (West), - - - -	2·514	9·878	12·392	25·374	12·504
34. Jordanhill, - - - -	2·104	9·583	11·687	25·116	12·157
35. Pollokshaws, - - - -	2·568	9·871	12·439	24·625	11·599
36. Cathcart, - - - -	2·052	8·162	10·214	28·991	12·173
37. Shettleston and Tollcross, - -	3·001	11·424	14·425	23·535	12·899
Institutions, - - - -	0·943	2·604	3·547	14·479	2·043
Shipping, - - - -	0·467	0·467	0·934	2·955	1·244
Annexed Area (without Institutions and Shipping), - - -	2·540	9·730	12·270	24·851	11·988
Annexed Area (including Institutions and Shipping), - - -	2·502	9·562	12·064	24·582	11·759
<b>GREATER GLASGOW</b> (without Institutions and Shipping), - - -	2·436	9·208	11·644	25·681	11·500
<b>GREATER GLASGOW</b> (including Institutions and Shipping), - - -	2·385	9·035	11·420	25·379	11·240

Table VIII.—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Annexed Area.

Total Number of Empty Houses, 4,850.

Total Number of Windowed Rooms, 121,568.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75 +	Not Stated	Total.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	14	559	2,208	1,061	426	268	119	...	...	4,655
	Do. Single, ...	...	570	1,756	1,210	668	429	259	348	155	96	26	3	...	...	5,520
	Do. Widowed, ...	...	...	...	...	...	...	...	16	65	94	110	96	31	...	412
	Total Males, ...	...	570	1,756	1,210	668	429	259	2,572	1,281	616	404	218	31	...	10,587
	Females, Married, ...	...	...	...	...	...	59	981	2,360	843	384	212	123	10	...	4,972
	Do. Single, ...	...	587	1,664	1,161	733	438	282	204	119	92	32	29	22	...	5,363
2 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	44	103	179	317	352	111	...	1,106
	Total Females, ...	...	587	1,664	1,161	733	497	1,293	2,608	1,065	655	561	504	142	...	11,441
	Total Males and Females, ...	6,609	1,157	3,420	2,371	1,401	940	2,081	5,180	2,346	1,271	965	722	174	...	22,028
	Males, Married, ...	...	...	...	...	...	6	479	6,104	7,085	3,837	1,640	613	85	...	19,849
	Do. Single, ...	...	1,817	6,936	8,101	6,807	5,329	3,862	3,448	1,100	413	141	37	10	...	38,001
	Do. Widowed, ...	...	...	...	...	...	...	3	142	284	392	418	337	111	...	1,687
3 APARTMENTS—	Total Males, ...	...	1,817	6,936	8,101	6,807	5,335	4,344	9,694	8,469	4,642	2,199	987	206	...	59,537
	Females, Married, ...	...	...	...	...	...	57	1,124	7,670	6,825	3,152	1,226	420	52	...	20,526
	Do. Single, ...	...	1,722	6,913	7,996	6,562	4,746	2,600	1,891	633	288	147	101	28	...	33,628
	Do. Widowed, ...	...	...	...	...	...	...	4	113	377	677	776	848	292	...	3,087
	Total Females, ...	...	1,722	6,913	7,996	6,562	4,803	3,728	9,674	7,835	4,117	2,149	1,369	372	...	57,241
	Total Males and Females, ...	24,042	3,539	13,849	16,097	13,369	10,138	8,072	19,368	16,304	8,759	4,348	2,356	578	...	116,778
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	2	70	964	2,008	2,040	1,136	378	61	...	6,659
	Do. Single, ...	...	351	1,314	2,128	2,466	2,892	2,668	2,186	608	226	85	23	6	...	14,955
	Do. Widowed, ...	...	...	...	...	...	...	1	36	88	115	175	162	69	...	646
	Total Males, ...	...	351	1,314	2,128	2,466	2,894	2,739	3,186	2,704	2,381	1,396	563	136	...	22,260
	Females, Married, ...	...	...	...	...	...	8	143	1,410	2,288	1,950	928	265	27	...	7,020
	Do. Single, ...	...	251	1,266	2,072	2,569	2,752	2,139	1,950	688	301	132	70	32	...	14,223
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	6	48	130	326	460	397	200	...	1,567
	Total Females, ...	...	251	1,266	2,072	2,569	2,760	2,288	3,408	3,106	2,577	1,520	732	259	...	22,810
	Total Males and Females, ...	8,833	602	2,580	4,200	5,035	5,654	5,027	6,594	5,810	4,958	2,916	1,295	395	...	45,070
	Males, Married, ...	...	...	...	...	...	...	12	178	390	476	324	148	17	...	1,545
	Do. Single, ...	...	48	240	403	508	617	671	642	183	58	29	7	3	...	3,409
	Do. Widowed, ...	...	...	...	...	...	...	...	7	28	23	32	34	19	...	143
6 APARTMENTS—	Total Males, ...	...	48	240	403	508	617	683	827	601	557	385	189	39	...	5,097
	Females, Married, ...	...	...	...	...	...	3	27	300	463	489	279	80	5	...	1,646
	Do. Single, ...	...	58	264	430	536	646	655	679	253	154	78	28	14	...	3,795
	Do. Widowed, ...	...	...	...	...	...	1	3	11	36	88	144	131	75	...	489
	Total Females, ...	...	58	264	430	536	650	685	990	752	731	501	239	94	...	5,930
	Total Males and Females, ...	2,218	106	504	833	1,044	1,267	1,368	1,817	1,353	1,288	886	428	133	...	11,027



D. AKAKUMENIS—Males, Do. Single, Do. Widowed, Total Males, Females, Married, Do. Single, Do. Widowed, Total Females, Total Males and Females, 4,719	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</
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Table VIII. (1).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.  
Municipal Ward—PLANTATION, No. 27.

Total Number of Empty Houses, 626. Total Number of Windowed Rooms, 14,087.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	TOTAL.
1 APARTMENT—	Males, ...	...	...	...	...	...	1	64	275	166	68	38	17	...	...	629
	Do. Single, ...	...	73	217	143	94	56	25	47	19	10	3	...	...	...	687
	Do. Widowed, ...	...	...	...	...	...	...	...	2	12	17	25	11	7	...	74
	Total Males, ...	...	73	217	143	94	57	89	324	197	95	66	28	7	...	1390
	Females, Married, ...	...	...	...	...	6	...	114	328	127	70	36	13	2	...	696
	Do. Single, ...	...	...	...	...	53	...	41	27	18	10	4	3	1	...	678
	Do. Widowed, ...	...	76	197	146	102	...	...	6	20	26	51	37	16	...	156
2 APARTMENTS—	Total Females, ...	...	76	197	146	102	59	155	361	165	106	91	53	19	...	1530
	Total Males and Females, ...	935	149	414	289	196	116	244	685	362	201	157	81	26	...	2,920
	Males, ...	...	...	...	...	...	1	56	755	950	594	232	91	7	...	2,686
	Do. Single, ...	...	246	914	1144	912	729	491	472	147	73	30	9	1	...	5,168
	Do. Widowed, ...	...	...	...	...	...	...	...	16	36	43	81	55	15	...	246
	Total Males, ...	...	246	914	1,144	912	730	547	1,243	1,133	710	343	155	23	...	8,100
	Females, Married, ...	...	...	...	...	5	...	158	1,002	944	502	175	54	4	...	2,844
3 APARTMENTS—	Do. Single, ...	...	252	921	1,077	902	667	397	281	81	46	23	18	4	...	4,669
	Do. Widowed, ...	...	...	...	...	...	...	...	19	51	106	115	117	33	...	441
	Total Females, ...	...	252	921	1,077	902	672	555	1,302	1,076	654	313	189	41	...	7,954
	Total Males and Females, ...	3,338	498	1,835	2,221	1,814	1,402	1,102	2,545	2,209	1,364	656	344	64	...	16,054
	Males, ...	...	...	...	...	...	...	6	98	191	220	151	49	5	...	720
	Do. Single, ...	...	40	140	224	274	291	297	276	75	37	21	3	...	...	1,678
	Do. Widowed, ...	...	...	...	...	...	...	...	6	13	14	21	23	11	...	88
4 APARTMENTS—	Total Males, ...	...	40	140	224	274	291	303	380	279	271	193	75	16	...	2,486
	Females, Married, ...	...	...	...	...	...	1	17	145	256	231	120	28	4	...	802
	Do. Single, ...	...	30	131	227	...	326	256	227	78	40	13	5	3	...	1,602
	Do. Widowed, ...	...	...	...	...	...	...	...	7	8	36	57	52	19	...	179
	Total Females, ...	...	30	131	227	266	327	273	379	342	307	190	85	26	...	2,583
	Total Males and Females, ...	995	70	271	451	540	618	576	759	621	578	383	160	42	...	5,069
	Males, ...	...	...	...	...	...	...	2	22	47	61	60	33	1	...	226
5 APARTMENTS—	Do. Single, ...	...	9	31	48	49	96	114	148	38	11	9	1	...	...	554
	Do. Widowed, ...	...	...	...	...	...	...	...	...	1	4	10	5	1	...	21
	Total Males, ...	...	9	31	48	49	96	116	170	86	76	79	39	2	...	801
	Females, Married, ...	...	...	...	...	...	1	11	45	66	63	57	20	...	...	263
	Do. Single, ...	...	...	...	...	...	91	108	130	37	28	21	7	3	...	584
	Do. Widowed, ...	...	...	...	...	...	1	3	5	7	22	24	25	9	...	96
	Total Females, ...	...	...	...	...	...	93	122	180	110	113	102	52	12	...	943
		...	...	...	...	...	120	938	350	196	189	181	91	14	...	1,744



Table VIII. (2).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward—IBROX, No. 28.

Total Number of Empty Houses, 567.

Total Number of Windowed Rooms, 9,792.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	Total.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	5	29	135	81	36	34	9	...	...	359
	Do. Single, ...	...	36	113	74	42	35	27	43	16	4	5	1	...	...	396
	Do. Widowed, ...	...	...	...	...	...	...	...	...	1	6	7	4	...	...	18
	Total Males, ...	...	36	113	74	42	40	56	178	98	46	46	14	...	...	743
	Females, Married, ...	...	...	...	...	...	6	55	153	68	35	27	9	...	...	354
	Do. Single, ...	...	39	107	71	47	36	28	27	4	4	1	1	...	...	367
2 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	3	6	19	26	21	...	...	82
	Total Females, ...	...	39	107	71	47	42	83	183	78	58	54	31	...	...	803
	Total Males and Females, ...	467	75	220	145	89	82	139	361	176	104	100	45	10	...	1,546
	Males, Married, ...	...	...	...	...	...	...	52	517	633	343	171	73	12	...	1,801
	Do. Single, ...	...	146	641	762	672	543	386	370	131	48	14	2	1	...	3,716
	Do. Widowed, ...	...	...	...	...	...	...	...	14	46	54	51	23	9	...	197
3 APARTMENTS—	Total Males, ...	...	146	641	762	672	543	438	901	810	445	236	98	22	...	5,714
	Females, Married, ...	...	...	...	...	...	8	108	681	598	298	140	42	6	...	1,881
	Do. Single, ...	...	153	672	757	646	478	222	177	56	16	9	5	4	...	3,195
	Do. Widowed, ...	...	...	...	...	...	...	1	11	43	55	87	94	28	...	319
	Total Females, ...	...	153	672	757	646	486	331	869	697	369	236	141	38	...	5,395
	Total Males and Females, ...	2,231	299	1,313	1,519	1,318	1,029	769	1,770	1,507	814	472	239	60	...	11,109
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	...	9	87	238	205	99	42	5	...	685
	Do. Single, ...	...	45	141	224	247	260	268	223	64	30	10	6	1	...	1,519
	Do. Widowed, ...	...	...	...	...	...	...	...	3	11	6	19	19	9	...	67
	Total Males, ...	...	45	141	224	247	260	277	313	313	241	128	67	15	...	2,271
	Females, Married, ...	...	...	...	...	...	1	20	161	259	173	106	27	2	...	749
	Do. Single, ...	...	25	142	202	259	253	204	198	72	39	11	3	1	...	1,409
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	3	6	27	47	40	15	...	138
	Total Females, ...	...	25	142	202	259	254	224	362	337	239	164	70	18	...	2,296
	Total Males and Females, ...	923	70	283	426	506	514	501	675	650	480	292	137	33	...	4,567
	Males, Married, ...	...	...	...	...	...	...	2	18	37	52	25	11	1	...	146
	Do. Single, ...	...	6	29	39	69	77	65	42	11	8	3	...	...	...	349
	Do. Widowed, ...	...	...	...	...	...	...	...	1	8	1	2	5	4	...	21
6 APARTMENTS—	Total Males, ...	...	6	29	39	69	77	67	61	56	61	30	16	5	...	516
	Females, Married, ...	...	...	...	...	...	...	2	34	47	47	21	5	...	...	156
	Do. Single, ...	...	6	31	42	74	66	53	60	22	12	4	1	2	...	373
	Do. Widowed, ...	...	...	...	...	...	...	...	...	3	4	11	5	10	...	33
	Total Females, ...	...	6	31	42	74	66	55	...	72	63	36	11	12	...	562
	Total Males and Females, ...	195	12	60	81	143	143	122	155	128	124	66	27	17	...	1,078



AND UPWARDS.	Do. Single, ...	3	10	23	42	67	1	52	11	22	33	31	15	4	...	117
	Do. Widowed, ...	...	...	...	...	...	52	52	52	21	12	2	...	...	...	284
	Total Males, ...	...	10	23	42	67	...	...	...	45	3	5	4	2	...	17
	Females, Married, ...	...	...	...	...	...	53	64	64	...	48	38	19	6	...	418
	Do. Single, ...	...	15	24	39	91	2	21	21	29	37	27	8	...	...	124
	Do. Widowed, ...	...	...	...	...	...	73	96	96	50	26	5	3	1	...	427
	Total Females, ...	...	...	...	...	...	...	2	2	5	8	10	18	9	...	52
	Total Males and Females, ...	185	25	47	81	158	128	183	183	84	71	42	29	10	...	603
										129	119	80	48	16	...	1,021
TOTAL HOUSE POPULATION—	Males, Married, ...	...	...	...	...	5	93	768	768	1,011	669	360	150	22	...	3,078
	Do. Single, ...	236	934	1,122	1,072	982	798	730	730	243	102	34	9	2	...	6,264
	Do. Widowed, ...	...	...	...	...	...	...	19	19	68	70	84	55	24	...	320
	Total Males, ...	236	934	1,122	1,072	987	891	1,517	1,517	1,222	841	478	214	48	...	9,662
	Females, Married, ...	...	...	...	...	15	187	1,050	1,050	1,001	590	321	91	9	...	3,264
	Do. Single, ...	227	967	1,096	1,065	924	580	558	558	204	97	30	13	10	...	5,771
	Do. Widowed, ...	...	...	...	...	...	1	19	19	63	113	181	178	69	...	624
	Total Females, ...	227	967	1,096	1,065	939	768	1,627	1,627	1,268	800	532	282	88	...	9,659
	Total Males and Females, ...	463	1,901	2,218	2,137	1,926	1,659	3,144	3,144	2,590	1,641	1,010	496	136	...	19,321
INSTITUTIONS—	Males, Married, ...	...	...	...	...	...	...	9	9	15	8	8	2	...	...	42
	Do. Single, ...	...	...	...	...	3	27	79	79	70	33	18	7	...	...	237
	Do. Widowed, ...	...	...	...	...	...	...	3	3	14	10	18	17	2	...	64
	Total Males, ...	...	...	...	...	3	27	91	91	99	51	44	26	2	...	343
	Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Females, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Males and Females, ...	...	...	...	...	3	27	91	91	99	51	44	26	2	...	343
SHIPPING—	Males, Married, ...	...	...	...	...	...	6	20	20	10	5	2	...	...	...	43
	Do. Single, ...	...	...	...	...	7	16	16	16	3	...	...	...	...	...	42
	Do. Widowed, ...	...	...	...	...	...	...	2	2	...	2	5	...	...	...	9
	Total Males, ...	...	...	...	...	7	22	38	38	13	7	7	...	...	...	94
	Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Females, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Males and Females, ...	...	...	...	...	7	22	38	38	13	7	7	...	...	...	94
WARD TOTALS—	Males, Married, ...	...	...	...	...	5	99	797	797	1,036	682	370	152	22	...	3,163
	Do. Single, ...	236	934	1,122	1,072	992	841	825	825	316	135	52	16	2	...	6,543
	Do. Widowed, ...	...	...	...	...	...	...	24	24	82	82	107	72	26	...	393
	Total Males, ...	236	934	1,122	1,072	997	940	1,646	1,646	1,434	899	529	240	50	...	10,099
	Females, Married, ...	...	...	...	...	15	187	1,050	1,050	1,001	590	321	91	9	...	3,264
	Do. Single, ...	227	967	1,096	1,065	924	580	558	558	204	97	30	13	10	...	5,771
	Do. Widowed, ...	...	...	...	...	...	1	19	19	63	113	181	178	69	...	624
	Total Females, ...	227	967	1,096	1,065	939	768	1,627	1,627	1,268	800	532	282	88	...	9,659
	Total Males and Females, ...	463	1,901	2,218	2,137	1,936	1,708	3,273	3,273	2,702	1,699	1,061	522	138	...	19,758
GRAND TOTAL FOR WARD,	...	4,001	1,901	2,218	2,137	1,936	1,708	3,273	3,273	2,702	1,699	1,061	522	138	...	...

Table VIII. (3). Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.  
Municipal Ward—GOVAN CENTRAL, No. 29.

Total Number of Empty Houses, 472.

Total Number of Windowed Rooms, 8,914.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	Total.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	3	101	339	146	70	31	24	...	...	714
	Do. Single, ...	...	98	244	161	82	72	32	62	22	20	7	...	...	...	800
	Do. Widowed, ...	...	...	...	...	...	...	...	2	7	14	8	...	4	...	49
	Total Males, ...	...	...	244	161	82	75	133	403	175	104	46	38	4	...	1,563
	Females, Married, ...	...	...	...	...	...	6	174	354	125	51	28	27	1	...	766
	Do. Single, ...	...	...	...	...	...	57	36	16	10	15	2	3	1	...	759
2 APARTMENTS—	Do. Widowed, ...	...	78	267	164	110	...	...	5	7	23	36	57	9	...	137
	Total Females, ...	...	78	267	164	110	63	210	375	142	89	66	87	11	...	1,662
	Total Males and Females, ...	961	176	511	325	192	138	343	778	317	193	112	125	15	...	3,225
	Males, Married, ...	...	...	...	...	...	3	50	539	773	517	231	91	5	...	2,209
	Do. Single, ...	...	190	806	1,009	928	703	516	446	155	55	19	6	1	...	4,834
	Do. Widowed, ...	...	...	...	...	...	...	1	22	36	55	48	43	15	...	220
3 APARTMENTS—	Total Males, ...	...	190	806	1,009	928	706	567	1,007	964	627	298	140	21	...	7,263
	Females, Married, ...	...	...	...	...	...	7	107	721	780	435	153	56	6	...	2,265
	Do. Single, ...	...	202	770	920	953	706	352	175	38	20	7	4	2	...	4,149
	Do. Widowed, ...	...	...	...	...	...	...	...	13	44	94	90	86	32	...	359
	Total Females, ...	...	202	770	920	953	713	459	909	862	549	250	146	40	...	6,773
	Total Males and Females, ...	2,631	392	1,576	1,929	1,881	1,419	1,026	1,916	1,826	1,176	548	286	61	...	14,036
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	...	5	30	100	152	96	36	...	...	419
	Do. Single, ...	...	17	81	150	187	264	224	166	43	13	7	...	...	...	1,152
	Do. Widowed, ...	...	...	...	...	...	...	...	3	8	9	13	10	2	...	45
	Total Males, ...	...	17	81	150	187	264	229	199	151	174	116	46	2	...	1,616
	Females, Married, ...	...	...	...	...	...	2	4	41	122	150	68	21	2	1	411
	Do. Single, ...	...	13	60	144	214	325	200	139	34	7	4	...	1	...	1,041
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	1	2	6	25	25	21	9	...	89
	Total Females, ...	...	13	60	144	214	227	205	182	162	182	97	42	12	1	1,541
	Total Males and Females, ...	500	30	141	294	401	491	434	381	313	356	213	88	14	1	3,157
	Males, Married, ...	...	...	...	...	...	...	...	5	23	29	17	9	1	...	84
	Do. Single, ...	...	2	12	24	32	39	31	21	9	...	1	...	...	...	171
	Do. Widowed, ...	...	...	...	...	...	...	...	...	1	1	2	...	3	...	9
6 APARTMENTS—	Total Males, ...	...	2	12	24	32	39	31	...	33	30	20	11	4	...	264
	Females, Married, ...	...	...	...	...	...	...	...	26	30	25	16	4	...	...	85
	Do. Single, ...	...	...	...	...	...	...	1	9	30	25	16	4	...	...	192
	Do. Widowed, ...	...	2	17	28	32	36	38	29	5	3	1	1	...	...	10
	Total Females, ...	...	2	17	28	32	36	39	...	2	...	4	3	...	...	10
	Total Males and Females, ...	...	2	17	28	32	36	39	38	37	28	21	8	1	...	287
															5	551





Table VIII. (4).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.  
Municipal Ward—FAIRFIELD, No. 30.

Total Number of Empty Houses, 487. Total Number of Windowed Rooms, 8,679.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	Total.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	1	62	259	92	31	14	10	...	...	469
	Do. Single, ...	...	66	187	95	37	24	19	18	14	5	2	...	...	...	467
	Do. Widowed, ...	...	...	...	...	...	...	...	2	3	6	8	12	1	...	32
	Total Males, ...	...	66	187	95	37	25	81	279	109	42	24	22	1	...	968
	Females, Married, ...	...	...	...	...	...	9	104	268	65	30	10	12	1	...	499
	Do. Single, ...	...	62	168	100	54	25	18	29	15	7	3	1	1	...	483
2 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	6	12	23	23	21	9	...	94
	Total Females, ...	...	62	168	100	54	24	122	303	92	60	36	34	11	...	1,076
	Total Males and Females, ...	632	128	355	195	91	59	203	582	201	102	60	56	12	...	2,044
	Males, Married, ...	...	...	...	...	...	...	47	632	817	466	209	78	11	...	2,260
	Do. Single, ...	...	193	720	908	744	622	495	383	122	48	15	3	2	...	4,255
	Do. Widowed, ...	...	...	...	...	...	...	...	16	31	38	48	54	12	...	199
3 APARTMENTS—	Total Males, ...	...	193	720	908	744	622	542	1,031	970	552	272	135	25	...	6,714
	Females, Married, ...	...	...	...	...	...	5	122	815	792	382	145	63	5	...	2,329
	Do. Single, ...	...	188	702	875	703	490	318	249	74	32	11	8	...	...	3,650
	Do. Widowed, ...	...	...	...	...	...	...	...	14	52	83	86	93	31	...	359
	Total Females, ...	...	188	702	875	703	495	440	1,078	918	497	242	164	36	...	6,338
	Total Males and Females, ...	2,728	381	1,422	1,783	1,447	1,117	982	2,109	1,888	1,049	514	299	61	...	13,052
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	...	5	38	102	179	108	28	3	...	463
	Do. Single, ...	...	18	66	126	180	258	274	188	51	14	5	2	...	...	1,182
	Do. Widowed, ...	...	...	...	...	...	...	...	5	6	7	18	16	5	...	57
	Total Males, ...	...	18	66	126	180	258	279	231	159	200	137	46	8	...	1,702
	Females, Married, ...	...	...	...	...	...	...	7	51	123	180	82	15	1	...	459
	Do. Single, ...	...	10	65	123	198	276	205	165	43	14	8	4	6	...	1,117
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	1	4	9	34	32	22	13	...	115
	Total Females, ...	...	10	65	123	198	276	213	220	175	228	122	41	20	...	1,691
	Total Males and Females, ...	595	28	131	249	378	534	492	451	334	428	253	87	28	...	3,393
	Males, Married, ...	...	...	...	...	...	...	...	8	9	13	8	10	...	...	48
	Do. Single, ...	...	2	7	10	19	20	33	24	2	1	...	...	...	...	118
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2
6 APARTMENTS—	Total Males, ...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	168
	Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53
	Do. Single, ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	102
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13
	Total Females, ...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	168
	Total Males and Females, ...	58	5	18	20	34	39	58	59	27	32	24	19	1	...	336



Table VIII. (5).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward—PARTICK EAST, No. 31.

Total Number of Empty Houses, 475.

Total Number of Windowed Rooms, 15,136.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	Total.
1 APARTMENT—	Males,	...	...	...	...	...	...	18	107	81	33	18	6	...	...	263
	Do. Married, ...	...	22	115	70	55	25	18	25	7	4	1	...	...	...	342
	Do. Single, ...	...	...	...	...	...	...	18	25	4	6	10	...	...	...	27
	Do. Widowed, ...	...	...	...	...	...	...	...	1	4	29	29	5	1	...	682
	Total Males,	...	22	115	70	55	25	36	133	92	43	28	11	1	...	290
	Females, Married, ...	...	...	...	...	...	2	42	126	70	28	13	9	...	...	293
2 APARTMENTS—	Do. Single, ...	...	29	74	64	46	25	20	11	12	5	2	2	3	...	67
	Do. Widowed, ...	...	...	...	...	...	...	...	...	4	7	20	26	10	...	650
	Total Females,	...	29	74	64	46	27	62	137	86	40	35	37	13	...	1,282
	Total Males and Females,	387	51	189	134	101	52	98	270	178	83	64	48	14	...	1,070
	Males, Married, ...	...	...	...	...	...	1	21	313	408	185	105	32	5	...	2,068
	Do. Single, ...	...	102	385	438	364	277	200	204	75	13	8	2	...	...	98
3 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	4	21	25	25	17	6	...	3,236
	Total Males,	...	102	385	438	364	278	221	521	504	223	138	51	11	...	1,115
	Females, Married, ...	...	...	...	...	...	3	52	390	392	179	73	21	5	...	1,875
	Do. Single, ...	...	99	386	426	355	257	140	121	46	19	14	8	4	...	200
	Do. Widowed, ...	...	...	...	...	...	...	1	10	24	48	39	58	20	...	3,190
	Total Females,	...	99	386	426	355	260	193	521	462	246	126	87	29	...	6,426
4 APARTMENTS—	Total Males and Females,	1,328	201	771	864	719	538	414	1,042	966	469	264	138	40	...	1,135
	Males, Married, ...	...	...	...	...	...	1	13	163	323	347	195	78	15	...	2,643
	Do. Single, ...	...	54	195	335	388	496	511	464	128	48	14	8	2	...	133
	Do. Widowed, ...	...	...	...	...	...	...	1	7	17	32	34	32	10	...	3,911
	Total Males,	...	54	195	335	388	497	525	634	468	427	243	118	27	...	1,207
	Females, Married, ...	...	...	...	...	...	2	16	229	396	330	172	57	5	...	2,680
5 APARTMENTS—	Do. Single, ...	...	43	199	338	430	473	414	446	168	86	50	24	9	...	365
	Do. Widowed, ...	...	...	...	...	...	...	3	10	44	72	107	90	39	...	4,252
	Total Females,	...	43	199	338	430	475	433	685	608	488	329	171	53	...	8,163
	Total Males and Females,	1,715	97	394	673	818	972	958	1,319	1,076	915	572	289	80	...	321
	Males, Married, ...	...	...	...	...	...	...	1	29	65	104	86	30	6	...	789
	Do. Single, ...	...	4	42	73	111	137	170	168	52	19	10	2	1	...	33
6 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	3	10	9	3	8	...	...	1,143
	Total Males,	...	4	42	73	111	137	171	200	127	132	99	40	7	...	345
	Females, Married, ...	...	...	...	...	...	1	3	54	82	125	62	16	2	...	970
	Do. Single, ...	...	9	58	86	116	158	172	188	83	61	31	5	3	...	151
	Do. Widowed, ...	...	...	...	...	...	...	...	2	18	25	43	40	23	...	1,466
	Total Females,	...	9	58	86	116	159	175	244	183	211	136	61	28	...	2,609
Total Males and Females		548	13	100	159	227	296	346	444	310	343	235	101	35	...	





Table VIII. (6).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward—PARTICK CENTRAL, No. 32.

**Total Number of Empty Houses, 697.**

**Total Number of Windowed Rooms, 13,895.**

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75 +	Not Stated	TOTAL.
1 APARTMENT—																
Males,	Married, ...	...	73	205	170	108	...	63	247	151	62	49	12	...	...	584
Do.	Single, ...	...	...	...	...	...	72	42	39	27	23	3	...	...	...	762
Do.	Widowed, ...	...	...	...	...	...	...	...	3	15	16	11	18	4	...	67
	Total Males,	...	73	205	170	108	...	105	289	193	101	63	30	...	...	1,413
Females,	Married, ...	...	...	...	...	...	6	109	270	130	51	30	16	3	...	615
Do.	Single, ...	...	82	206	187	101	76	36	22	4	9	1	3	2	...	729
Do.	Widowed, ...	...	...	...	...	...	...	...	2	9	25	35	40	15	...	126
	Total Females,	...	82	206	187	101	82	145	294	143	85	66	59	20	...	1,470
	Total Males and Females,	819	155	411	357	209	154	250	583	336	186	129	89	24	...	2,883
2 APARTMENTS—																
Males,	Married, ...	...	...	...	...	...	1	73	969	946	432	178	57	15	...	2,671
Do.	Single, ...	...	227	917	952	764	587	455	441	142	49	16	2	2	...	4,554
Do.	Widowed, ...	...	...	...	...	...	...	...	23	30	41	50	41	15	...	200
	Total Males,	...	227	917	952	764	588	528	1,433	1,118	522	244	100	32	...	7,425
Females,	Married, ...	...	...	...	...	...	6	164	1,162	917	353	139	54	8	...	2,803
Do.	Single, ...	...	244	931	985	728	515	299	281	103	40	24	10	2	...	4,162
Do.	Widowed, ...	...	...	...	...	...	...	2	7	50	89	107	113	35	...	403
	Total Females,	...	244	931	985	728	521	465	1,450	1,070	482	270	177	45	...	7,368
	Total Males and Females,	3,268	471	1,848	1,937	1,492	1,109	993	2,883	2,188	1,004	514	277	77	...	14,793
3 APARTMENTS—																
Males,	Married, ...	...	...	...	...	...	...	8	115	248	232	134	46	10	...	793
Do.	Single, ...	...	36	154	249	305	340	316	290	80	21	9	1	1	...	1,802
Do.	Widowed, ...	...	...	...	...	...	...	...	...	8	22	22	12	7	...	71
	Total Males,	...	36	154	249	305	340	324	405	336	275	165	59	18	...	2,666
Females,	Married, ...	...	...	...	...	...	...	14	194	261	225	109	41	3	...	847
Do.	Single, ...	...	32	157	242	275	289	241	238	88	30	8	11	3	...	1,614
Do.	Widowed, ...	...	...	...	...	...	...	1	4	18	50	53	54	28	...	208
	Total Females,	...	32	157	242	275	289	256	436	367	305	170	106	34	...	2,669
	Total Males and Females,	1,076	68	311	491	580	629	580	841	703	580	335	165	52	...	5,335
4 APARTMENTS—																
Males,	Married, ...	...	...	...	...	...	...	1	15	30	60	30	19	3	...	158
Do.	Single, ...	...	5	26	39	53	86	87	76	17	7	1	...	...	...	397
Do.	Widowed, ...	...	...	...	...	...	...	...	2	1	3	3	2	...	...	11
	Total Males,	...	5	26	39	53	86	88	93	48	70	34	21	3	...	566
Females,	Married, ...	...	...	...	...	...	...	2	27	38	63	30	7	...	...	168
Do.	Single, ...	...	7	23	43	55	78	81	61	23	12	8	6	2	...	399
Do.	Widowed, ...	...	...	...	...	...	...	...	1	1	8	16	13	11	...	50
	Total Females,	...	7	23	43	55	79	83	89	62	83	54	26	13	...	617
	Total Males and Females,	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,183

AND UPWARDS.	Do. Single, ...	4	17	47	73	77	73	94	41	13	6	4	1	450
	Do. Widowed, ...	...	...	...	...	...	...	...	1	5	7	9	5	27
	Total Males, ...	...	17	47	73	77	73	108	89	91	60	40	10	690
	Females, Married, ...	...	...	...	...	...	...	24	59	75	45	16	...	221
TOTAL HOUSE POPULATION—	Do. Single, ...	5	18	37	53	141	150	164	93	42	26	8	4	741
	Do. Widowed, ...	...	...	...	...	...	1	4	6	18	22	36	15	102
	Total Females, ...	5	18	37	53	141	153	192	158	135	93	60	19	1,064
	Total Males and Females, ...	9	35	84	126	218	227	300	247	226	153	100	29	1,754
TOTAL HOUSE POPULATION—	Males, Married, ...	...	...	...	...	1	146	1,360	1,422	859	438	161	32	4,419
	Do. Single, ...	345	1,319	1,457	1,303	1,162	973	940	307	113	35	7	4	7,965
	Do. Widowed, ...	...	...	...	...	...	...	28	55	87	93	82	31	376
	Total Males, ...	345	1,319	1,457	1,303	1,163	1,119	2,328	1,784	1,059	566	250	67	12,760
INSTITUTIONS—	Females, Married, ...	...	...	...	...	13	291	1,677	1,405	767	353	134	14	4,654
	Do. Single, ...	...	1,335	1,494	1,212	1,099	807	766	311	133	67	38	13	7,645
	Do. Widowed, ...	...	...	...	...	...	4	18	84	190	233	256	104	889
	Total Females, ...	370	1,335	1,494	1,212	1,112	1,102	2,461	1,800	1,090	653	428	131	13,188
SHIPPING—	Total Males and Females, ...	715	2,654	2,951	2,515	2,275	2,221	4,789	3,584	2,149	1,219	678	198	25,948
	Males, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Single, ...	...	...	...	...	...	...	1	2	2	2	...	...	7
	Do. Widowed, ...	...	...	...	...	...	...	2	1	1	...	...	...	4
WARD TOTALS—	Total Males, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL FOR WARD,	Total Females, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total Males and Females, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Males, Married, ...	...	...	...	...	1	146	1,361	1,424	861	440	161	32	4,426
	Do. Single, ...	345	1,319	1,457	1,303	1,162	973	942	308	114	35	7	4	7,969
WARD TOTALS—	Do. Widowed, ...	...	...	...	...	...	...	28	55	87	93	82	31	376
	Total Males, ...	345	1,319	1,457	1,303	1,163	1,119	2,331	1,787	1,062	568	250	67	12,771
	Females, Married, ...	...	...	...	...	13	291	1,677	1,405	767	353	134	14	4,654
	Do. Single, ...	...	1,335	1,494	1,212	1,099	807	766	311	133	67	38	13	7,645
GRAND TOTAL FOR WARD,	Do. Widowed, ...	...	...	...	...	...	4	18	84	190	233	256	104	889
	Total Females, ...	370	1,335	1,494	1,212	1,112	1,102	2,461	1,800	1,090	653	428	131	13,188
	Total Males and Females, ...	715	2,654	2,951	2,515	2,275	2,221	4,792	3,587	2,152	1,221	678	198	25,959
	Total Males and Females, ...	5,732	2,654	2,951	2,515	2,275	2,221	4,792	3,587	2,152	1,221	678	198	25,959



Table VIII. (7).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.  
Municipal Ward—PARTICK WEST, No. 33.

Total Number of Empty Houses, 433. Total Number of Windowed Rooms, 12,112.

Size of House and Social Conditions.	Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	TOTAL.
<b>1 APARTMENT—</b>															
Males, Married, ...	...	...	...	...	...	3	44	166	49	12	11	6	...	...	291
Do. Single, ...	...	31	104	70	15	9	12	16	6	1	1	...	...	...	265
Do. Widowed, ...	...	...	...	...	...	...	...	2	2	3	11	4	3	...	25
Total Males, ...	...	31	104	70	15	...	56	184	57	16	23	10	3	...	581
Females, Married, ...	...	...	...	...	...	10	66	162	35	11	10	2	...	...	296
Do. Single, ...	...	36	102	56	24	14	13	8	3	6	...	...	...	...	262
Do. Widowed, ...	...	...	...	...	...	...	...	2	4	6	15	13	5	...	45
Total Females, ...	...	36	102	56	24	24	79	172	42	23	25	15	5	...	603
Total Males and Females, ...	363	67	206	126	39	36	135	356	99	39	48	25	8	...	1,184
<b>2 APARTMENTS—</b>															
Males, Married, ...	...	...	...	...	...	...	36	540	640	326	135	37	4	...	1,718
Do. Single, ...	...	199	645	683	595	476	333	337	86	36	7	3	...	...	3,400
Do. Widowed, ...	...	...	...	...	...	...	1	15	20	37	28	29	5	...	135
Total Males, ...	...	199	645	683	595	476	370	892	746	399	170	69	9	...	5,253
Females, Married, ...	...	...	...	...	...	8	91	685	583	257	95	30	3	...	1,752
Do. Single, ...	...	133	600	760	544	375	176	115	46	18	9	7	3	1	2,787
Do. Widowed, ...	...	...	...	...	...	...	...	9	40	43	51	58	26	...	227
Total Females, ...	...	133	600	760	544	383	267	809	669	318	155	95	32	1	4,766
Total Males and Females, ...	1,999	332	1,245	1,443	1,139	859	637	1,701	1,415	717	325	164	41	1	10,019
<b>3 APARTMENTS—</b>															
Males, Married, ...	...	...	...	...	...	...	4	107	150	121	86	23	6	...	497
Do. Single, ...	...	27	110	148	146	181	153	130	29	15	4	...	...	...	943
Do. Widowed, ...	...	...	...	...	...	...	...	3	4	6	11	9	5	...	38
Total Males, ...	...	27	110	148	146	181	157	240	183	142	101	32	11	...	1,478
Females, Married, ...	...	...	...	...	...	...	21	121	181	124	73	15	2	...	537
Do. Single, ...	...	8	84	147	174	180	125	116	62	20	6	4	4	1	931
Do. Widowed, ...	...	...	...	...	...	...	...	7	7	11	23	20	13	...	81
Total Females, ...	...	8	84	147	174	180	146	244	250	155	102	39	19	1	1,549
Total Males and Females, ...	636	35	194	295	320	361	303	484	433	297	203	71	30	1	3,027
<b>4 APARTMENTS—</b>															
Males, Married, ...	...	...	...	...	...	...	2	37	62	49	37	10	1	...	198
Do. Single, ...	...	9	41	55	52	48	47	48	20	4	2	...	1	...	327
Do. Widowed, ...	...	...	...	...	...	...	...	...	2	3	3	3	3	...	14
Total Males, ...	...	9	41	55	52	48	49	85	84	56	42	13	5	...	539
Females, Married, ...	...	...	...	...	...	...	2	53	67	49	30	7	...	...	208
Do. Single, ...	...	6	32	51	47	53	56	73	25	11	3	3	1	...	361
Do. Widowed, ...	...	...	...	...	...	...	...	...	...	6	13	18	3	...	40
Total Females, ...	...	6	32	51	47	53	58	126	92	66	46	28	4	...	609
Total Males and Females, ...	...	6	32	51	47	53	58	126	92	66	46	28	4	...	1,148



Table VIII. (8).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward—JORDANHILL, No. 34.

Total Number of Empty Houses, 258.

Total Number of Windowed Rooms, 8,719.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	Total
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	1	5	53	20	9	4	1	...	...	93
	Do. Single, ...	...	8	37	50	16	9	16	11	2	3	1	...	...	...	153
	Do. Widowed, ...	...	...	...	...	...	...	...	...	3	3	2	...	...	...	12
	Total Males, ...	...	8	37	50	16	10	21	64	25	15	7	4	1	...	258
	Females, Married, ...	...	...	...	...	...	...	16	56	11	9	2	4	...	...	98
	Do. Single, ...	...	15	47	31	18	16	8	4	2	2	1	2	...	...	147
2 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	3	3	3	5	4	...	...	30
	Total Females, ...	...	15	47	31	18	16	24	63	16	14	8	18	5	...	275
	Total Males and Females, ...	146	23	84	81	34	26	45	127	41	29	15	22	6	...	533
	Males, Married, ...	...	...	...	...	...	...	36	407	415	204	61	26	7	...	1,156
	Do. Single, ...	...	99	387	460	369	268	206	184	50	20	5	3	1	...	2,052
	Do. Widowed, ...	...	...	...	...	...	...	...	7	14	15	16	19	6	...	77
3 APARTMENTS—	Total Males, ...	...	99	387	460	369	268	242	598	479	239	82	48	14	...	3,285
	Females, Married, ...	...	...	...	...	...	3	70	482	402	141	48	19	4	...	1,169
	Do. Single, ...	...	82	407	413	334	194	119	95	48	11	6	8	2	...	1,719
	Do. Widowed, ...	...	...	...	...	...	...	...	5	11	26	41	54	11	...	148
	Total Females, ...	...	82	407	413	334	197	189	582	461	178	95	81	17	...	3,036
	Total Males and Females, ...	1,355	181	794	873	703	465	431	1,180	940	417	177	129	31	...	6,321
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	1	3	41	118	104	46	14	...	...	327
	Do. Single, ...	...	25	89	127	155	174	131	92	25	9	5	...	1	...	833
	Do. Widowed, ...	...	...	...	...	...	...	...	1	3	2	5	4	3	...	18
	Total Males, ...	...	25	89	127	155	175	134	134	146	115	56	18	4	...	1,178
	Females, Married, ...	...	...	...	...	...	...	8	74	131	91	30	8	...	...	342
	Do. Single, ...	...	18	78	134	149	140	81	61	13	12	1	...	1	...	688
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	2	4	16	18	15	9	...	64
	Total Females, ...	...	18	78	134	149	140	89	137	148	119	49	23	10	...	1,094
	Total Males and Females, ...	390	43	167	261	304	315	223	271	294	234	105	41	14	...	2,272
	Males, Married, ...	...	...	...	...	...	...	...	4	9	5	5	3	...	...	26
	Do. Single, ...	...	...	2	10	9	8	16	10	2	...	1	...	...	...	58
	Do. Widowed, ...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	2
6 APARTMENTS—	Total Males, ...	...	...	...	...	...	...	...	...	12	...	6	...	...	...	86
	Females, Married, ...	...	...	...	...	...	...	...	4	10	5	6	1	...	...	26
	Do. Single, ...	...	1	4	...	...	...	...	3	...	...	...	...	...	...	53
	Do. Widowed, ...	...	...	...	...	...	...	...	...	...	2	...	...	2	...	9
	Total Females, ...	...	1	4	...	...	...	...	...	...	7	8	4	2	...	88
	Total Males and Females, ...	34	1	6	18	21	20	10	21	25	12	14	7	3	...	174











Table VIII. (10).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward—CATHCART, No. 36.

Total Number of Empty Houses, 265. Total Number of Windowed Rooms, 11,958.

Size of House and Social Conditions.	Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	TOTAL.
1 APARTMENT—															
Males, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	47
Do. Single, ...	...	6	14	6	2	2	3	4	...	1	...	...	...	...	38
Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	3
Total Males, ...	...	6	14	6	2	2	11	27	...	6	3	...	7	...	88
Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51
Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50
Do. Widowed, ...	...	8	17	5	5	2	2	3	...	1	...	...	...	...	21
Total Females, ...	...	8	17	5	5	...	...	28	12	6	9	...	...	...	122
Total Males and Females, ...	79	14	31	11	7	6	26	55	19	12	12	12	5	...	210
2 APARTMENTS—															
Males, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	837
Do. Single, ...	...	75	294	257	189	124	81	90	26	11	7	...	...	...	1,154
Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41
Total Males, ...	...	75	294	257	189	124	...	437	326	118	56	29	18	...	2,032
Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	857
Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,068
Do. Widowed, ...	...	79	257	274	172	101	77	53	24	15	7	6	3	...	122
Total Females, ...	...	79	257	274	172	104	...	469	290	99	71	71	24	...	2,047
Total Males and Females, ...	1,007	154	551	531	361	228	246	906	616	217	127	100	42	...	4,079
3 APARTMENTS—															
Males, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	427
Do. Single, ...	...	24	84	145	145	132	114	91	25	7	1	...	...	...	768
Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36
Total Males, ...	...	24	84	145	145	132	117	180	183	128	55	25	13	...	1,231
Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	444
Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	750
Do. Widowed, ...	...	24	91	133	136	122	97	80	34	14	9	9	1	...	81
Total Females, ...	...	24	91	133	136	122	...	...	5	13	21	22	17	...	1,275
Total Males and Females, ...	530	48	175	278	281	255	224	379	378	255	131	68	34	...	2,506
4 APARTMENTS—															
Males, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	80
Do. Single, ...	...	2	14	26	22	27	21	29	8	...	...	1	...	...	150
Do. Widowed, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Total Males, ...	...	2	14	26	22	27	...	...	...	...	...	...	...	...	235
Females, Married, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	82
Do. Single, ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	170
Do. Widowed, ...	...	4	16	24	28	27	19	29	14	7	2	...	...	...	27
Total Females, ...	...	4	16	24	28	27	...	...	3	6	7	...	...	...	279
Total Males and Females, ...	115	6	30	50	50	54	42	80	83	59	36	16	8	...	514



Table VIII. (11).—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.

Municipal Ward TOLLCROSS AND SHETTLESTON, No. 37.

Total Number of Windowed Rooms, 11,905.

Total Number of Empty Houses, 434.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75+	Not Stated	TOTAL.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	...	126	408	187	57	43	22	...	...	843
	Do. Single, ...	...	110	355	245	146	82	35	45	21	11	1	1	...	...	1,052
	Do. Widowed, ...	...	...	...	...	...	...	...	3	13	14	16	12	2	...	60
	Total Males, ...	...	110	355	245	146	82	161	456	221	82	60	35	2	...	1,955
	Females, Married, ...	...	...	...	...	...	7	207	418	143	54	40	16	1	...	886
	Do. Single, ...	...	110	330	217	146	78	52	27	24	11	4	4	1	...	1,004
2 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	9	22	22	36	62	12	...	163
	Total Females, ...	...	110	330	217	146	85	259	454	189	87	80	82	14	...	2,053
	Total Males and Females, ...	1,139	220	685	462	292	167	420	910	410	169	140	117	16	...	4,008
	Males, Married, ...	...	...	...	...	...	...	53	784	834	446	187	62	6	...	2,372
	Do. Single, ...	...	241	875	1,061	873	668	476	327	110	41	14	4	...	...	4,690
	Do. Widowed, ...	...	...	...	...	...	...	1	12	30	48	39	32	9	...	171
3 APARTMENTS—	Total Males, ...	...	241	875	1,061	873	668	530	1,123	974	525	240	98	15	...	7,233
	Females, Married, ...	...	...	...	...	...	7	125	937	806	348	143	34	6	...	2,406
	Do. Single, ...	...	212	887	995	845	636	313	190	53	40	19	14	1	...	4,205
	Do. Widowed, ...	...	...	...	...	...	...	...	11	34	77	84	77	33	...	316
	Total Females, ...	...	212	887	995	845	643	438	1,138	893	465	246	125	40	...	6,927
	Total Males and Females, ...	2,789	453	1,762	2,056	1,718	1,311	968	2,261	1,867	1,000	486	223	55	...	14,160
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	...	11	129	238	232	102	29	7	...	748
	Do. Single, ...	...	42	160	243	265	321	230	160	54	18	4	3	...	2	1,502
	Do. Widowed, ...	...	...	...	...	...	...	...	5	7	9	17	16	5	...	59
	Total Males, ...	...	42	160	243	265	321	241	294	299	259	123	48	12	...	2,309
	Females, Married, ...	...	...	...	...	...	...	18	175	248	226	70	26	2	...	765
	Do. Single, ...	...	24	167	248	293	285	181	151	45	16	6	6	2	...	1,424
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	...	...	2	11	20	42	34	18	...	127
	Total Females, ...	...	24	167	248	293	285	199	328	304	262	118	66	22	...	2,316
	Total Males and Females, ...	874	66	327	491	558	606	440	622	603	521	241	114	34	2	4,625
	Males, Married, ...	...	...	...	...	...	...	...	23	53	57	29	10	2	...	174
	Do. Single, ...	...	7	28	54	65	61	55	46	15	4	2	3	1	...	341
	Do. Widowed, ...	...	...	...	...	...	...	...	1	2	1	2	6	2	...	14
6 APARTMENTS—	Total Males, ...	...	7	28	54	65	61	55	70	70	62	33	19	5	...	529
	Females, Married, ...	...	...	...	...	...	...	1	31	61	50	23	8	2	...	176
	Do. Single, ...	...	8	31	67	58	80	61	50	18	12	6	5	...	...	396
	Do. Widowed, ...	...	...	...	...	...	...	...	1	1	6	10	9	6	...	33
	Total Females, ...	...	8	31	67	58	80	62	82	80	68	39	22	8	...	605
	Total Males and Females, ...	...	15	59	121	123	141	117	152	150	130	72	41	13	...	1,134





Table IX.—Glasgow Census, 1911.—Age, Sex, Civil Condition, and Housing of the Population.  
GREATER GLASGOW.

Total Number of Empty Houses, 25,747.

Total Number of Windowed Rooms, 537,370.

Size of House and Social Conditions.		Number of Inhabited Houses.	-1	-5	-10	-15	-20	-25	-35	-45	-55	-65	-75	75 +	Not Stated	TOTAL.
1 APARTMENT—	Males, Married, ...	...	...	...	...	...	41	2,921	12,002	6,137	2,917	1,701	741	125	...	26,585
	Do. Single, ...	...	2,992	9,169	6,375	3,899	2,686	1,582	1,981	926	481	154	46	11	...	30,302
	Do. Widowed, ...	...	...	...	...	...	...	...	139	377	588	500	461	172	...	2,237
	Total Males, ...	...	2,992	9,169	6,375	3,899	2,727	4,503	14,122	7,440	3,986	2,355	1,248	308	...	59,124
	Females, Married, ...	...	...	...	...	...	354	5,470	12,445	5,481	2,811	1,405	589	83	...	28,638
	Do. Single, ...	...	...	...	...	...	2,995	1,878	1,957	926	668	359	297	126	...	31,791
2 APARTMENTS—	Do. Widowed, ...	...	3,017	9,143	6,401	4,023	...	23	376	849	1,461	1,828	1,855	724	...	7,116
	Total Females, ...	...	3,017	9,143	6,401	4,023	3,349	7,371	14,778	7,256	4,940	3,592	2,741	933	...	67,545
	Total Males and Females, ...	39,351	6,009	18,312	12,776	7,922	6,076	11,874	28,900	14,696	8,926	5,947	3,989	1,241	1	126,669
	Males, Married, ...	...	...	...	...	...	41	2,070	23,880	28,315	15,990	7,108	2,553	321	...	80,278
	Do. Single, ...	...	7,075	27,450	32,481	27,883	22,652	15,914	14,413	4,840	1,733	626	174	37	3	155,281
	Do. Widowed, ...	...	...	...	...	...	1	27	524	1,188	1,761	1,788	1,395	427	...	7,111
3 APARTMENTS—	Total Males, ...	...	7,075	27,450	32,481	27,883	22,694	18,011	38,817	34,343	19,484	9,522	4,122	785	3	242,670
	Females, Married, ...	...	...	...	...	...	256	4,641	29,668	27,669	13,621	5,530	1,772	180	...	83,337
	Do. Single, ...	...	6,969	27,192	32,663	27,687	21,403	12,429	8,896	3,173	1,571	791	456	136	2	143,368
	Do. Widowed, ...	...	...	...	...	...	3	45	531	1,846	3,386	3,953	3,760	1,220	...	14,744
	Total Females, ...	...	6,969	27,192	32,663	27,687	21,662	17,115	39,095	32,688	18,578	10,274	5,988	1,536	2	241,449
	Total Males and Females, ...	99,578	14,044	54,642	65,144	55,570	44,356	35,126	77,912	67,031	38,062	19,796	10,110	2,321	5	484,119
4 APARTMENTS—	Males, Married, ...	...	...	...	...	...	20	293	4,389	8,653	9,083	5,393	1,749	250	...	29,830
	Do. Single, ...	...	1,401	5,773	9,219	11,014	12,931	11,621	10,498	3,149	1,175	455	147	28	3	67,414
	Do. Widowed, ...	...	...	...	...	...	...	8	205	409	665	872	787	286	...	3,232
	Total Males, ...	...	1,401	5,773	9,219	11,014	12,951	11,922	15,092	12,211	10,923	6,720	2,683	564	3	100,476
	Females, Married, ...	...	...	...	...	...	51	761	6,104	9,726	8,878	4,273	1,203	118	1	31,115
	Do. Single, ...	...	1,247	5,881	9,020	11,430	12,781	10,608	9,376	3,075	1,524	667	330	122	2	66,063
5 APARTMENTS—	Do. Widowed, ...	...	...	...	...	...	1	18	207	679	1,651	2,225	1,929	786	3	7,499
	Total Females, ...	...	1,247	5,881	9,020	11,430	12,833	11,387	15,687	13,480	12,053	7,165	3,462	1,026	6	104,677
	Total Males and Females, ...	39,608	2,648	11,654	18,239	22,444	25,784	23,309	30,779	25,691	22,976	13,885	6,145	1,590	9	205,153
	Males, Married, ...	...	...	...	...	...	6	69	1,019	2,135	2,605	1,987	759	101	1	8,682
	Do. Single, ...	...	...	...	...	...	3,582	4,075	4,298	1,365	530	228	101	18	...	20,520
	Do. Widowed, ...	...	...	...	...	...	1	2	45	119	191	288	293	138	...	1,077
6 APARTMENTS—	Total Males, ...	...	257	1,248	2,083	2,735	3,589	4,146	5,362	3,619	3,326	2,503	1,153	257	1	30,279
	Females, Married, ...	...	...	...	...	...	9	203	1,507	2,475	2,725	1,625	494	35	...	9,073
	Do. Single, ...	...	273	1,298	2,133	2,790	3,944	3,817	4,569	1,965	1,102	505	262	85	2	22,745
	Do. Widowed, ...	...	...	...	...	...	2	5	62	234	621	926	890	427	1	3,168
	Total Females, ...	...	273	1,298	2,133	2,790	3,955	4,025	6,138	4,674	4,448	3,056	1,646	547	3	34,986
	Total Males and Females, ...	13,035	530	2,546	4,216	5,525	7,544	8,171	11,500	8,293	7,774	5,559	2,799	804	4	65,265







## APPENDIX III.

## INFANT MORTALITY IN THE FIRST FOUR WEEKS OF LIFE.\*

Several considerations may be advanced in support of the suggestion that the causes of death among the recently born requires more detailed scrutiny than they have hitherto received.

The deaths under one month form almost one-third of the total deaths occurring during the first year of life; those occurring in the first week form quite one-half those occurring within the first month.

If not wholly refractory to the agencies to which we are accustomed to ascribe the reduction of the death-rate at later age-periods, and even during subsequent months of the first year, it may, I think, be stated with reasonable accuracy that any evidence of decrease in the death-rate during the early weeks of life is wholly dependent on fluctuation in the rate of those diseases which are common to infancy and adult life.

More particularly is this true of respiratory and diarrhoeal diseases, which move in relation to air-temperature and climatic conditions generally, and to a large extent determine the rate of infant mortality for the year.

The principal causes of death in the first four weeks of life, however, do not belong to any of these classes.

For the most part, indeed, they would appear to be due not to disease successfully attacking a previously healthy child, but to physiological unfitness in the newly born to maintain an independent existence. Two-thirds of these deaths may be ascribed to causes which suggest cell-deterioration in the ante-natal stage, and find pathological expression in the various forms of immaturity.

For the most part they are the deaths of children who, in a very literal sense, may be said to have been born to die. They would appear to be related to, if, indeed, they do not form part of, the problem which surrounds a large proportion of still-births and destruction of the foetus at earlier stages of gestation.

We are not here concerned, primarily at least, with the question whether administrative procedure on present lines can remove the causes which produce these misfits of nature; our present object, as I apprehend it, is to ascertain whether they occur under conditions which can be differentiated on the basis of the physical environment of the parent. Here is the first question which requires consideration. Parental influences, recessive types of vitality, syphilis, renal disease, alcohol, excess in any form, or deficiency in the food supply of the mother, bad environment generally, may all be admitted into the category of probable causes, but all of them operate along tangible lines, and should be capable of recognition.

A first view of the facts taken broadly would appear somewhat to be against this assumption, however. I quote from the 73rd Annual Report of the Registrar-General for England and Wales (1910): "For the first month of life . . . the urban excess is usually only about 8 per cent. . . . It would seem that at birth the urban infant is almost as healthy as the rural, but that the adverse post-natal influences of town life soon diminish its relative chances of survival. . . . The differences in mortality during the first month of life between counties of high and low infantile mortality are very much less than at high ages."

It may serve to illustrate these conclusions if I rearrange in the following way some of the rates given in Tables XXXII., XXXV., and XXXVI. of the same report:—

England and Wales, 1910.		Urban.	Rural.
Proportion of deaths from wasting diseases to total deaths under one month, . . . . .	75	76	
Proportion of total deaths under one month to total deaths under one year, . . . . .	34	41	

\* Paper read at the XVIIth International Congress of Medicine, London, August, 1913.

For England and Wales as a whole the number of deaths under one month formed 36·4 per cent. of the total infant death-rate, and in view of the predominant part played by "immaturity" in that period, it may be of more than passing interest to note that an exactly similar ratio is recorded in Berlin in the same year.

These data would appear to suggest a strain of inefficient preparation for motherhood, or of inability on the part of one or both parents to beget healthy children, which is independent of surroundings and knows no geographical boundaries.

Whether this is due to disease affecting the parent in recognisable form is, I submit, a question which awaits your consideration.

In what follows I can only suggest some of the conclusions which indeed lie on the surface of the inquiry.

#### SCARCITY OF INFORMATION.

Directly we inquire into the causes of death in these early weeks the need for accurate information becomes obvious. Already, it is true, the ground has been broken, and of the workers in this country I need only mention the names of Murphy, Newsholme, Stevenson, and Sykes on the statistical aspect of the question, but we require the aid of the clinician and above all of the gynæcologist to supplement the work of Priestley, Ballantyne, Malins, Spencer, and others in this direction.

The ordinary methods of comparing death-rates are not here available. To a large extent, indeed, the data for comparison have still to be collected. There is no strict parallel between the general death-rate of a population and its infant mortality rate. England, for example, has a general death-rate which is constantly below that of Scotland, but the infant mortality rates of the two countries are reversed because of the greater prevalence of summer diarrhoea in the southern portion of the kingdom. In this case, however, the disease mainly affects a later period of infancy than we are considering.

What is required is a tabulation of the causes of death in the days and weeks of the first month, and this information is not available for some parts of the country, and for others only for recent years.

I propose, therefore, using some local figures by way of inquiring into the causes of death during this period.

#### GENERAL MOVEMENT OF INFANT DEATH-RATE DURING LAST 30 YEARS.

If we compare the total infant death-rate in Scotland during the last 30 years with that of England and Wales, there is a general correspondence in the movement despite the difference in rate.

In both countries throughout the two decades following 1881 there is a steady increase which reaches its maximum in 1896-1900, since which the fall in Scotland is equal to 13 per cent.

The principal features of this movement are repeated in the several districts of Scotland, as is shown in the following table:—

#### NUMBER OF DEATHS PER 1,000 BIRTHS IN SCOTLAND AND ITS DISTRICT.

- (1) From all Causes in 1st Year, and (2) from Immaturity in 1st three months.  
Average Rates in successive Quinquennia.

Average rate of 5 years.	Scotland.		Principal Towns.		Mainland Rural.		Glasgow.		Dundee.	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1881-5, -	118	29.5	141	32.8	86	23.8	151	33.2	152	37.9
1886-90, -	121	30.4	140	33.1	91	25.1	143	32.9	168	42.5
1891-5, -	126	32.5	145	35.4	95	26.7	145	34.6	179	46.4
1896-1900,	129	32.7	149	35.8	96	27.6	152	36.1	176	41.6
1901-5, -	120	34.0	136	35.2	90	28.9	140	36.1	154	38.4
1906-10, -	113	34.2	127	35.4	87	30.7	131	34.4	157	43.1
Percent. dif- ference be- tween maxi- mum and 1906-10, ...	- 13		- 15		- 9		- 14		- 12.3	

A statement of the total infant rate, however, obscures the movement of the deaths we are chiefly concerned with, and in order to get a comparison over several decades of the principal causes of death in the first month, it is necessary in Scotland to include the aggregate during the first three months.

The rates for this group are introduced in the columns marked (2) in the foregoing table. A word will explain what this group includes.

#### IMMATURITY AND WASTING AS A CAUSE OF DEATH.

As we shall see later, there is a considerable degree of variation in the use of the terms used to describe the deaths of infants in the early weeks, and for the moment I suggest "immaturity" as the simplest method of expressing the inability of the child to live apart from its mother, and would include within it all deaths occurring during the first month, and ascribed to premature birth, congenital defects, atelectasis, atrophy and debility or wasting disease.

When so stated the direction of this rate arrests attention. Between 1881 and 1910, for Scotland as a whole it rises from 30 to 34; in the mainland rural districts from 24 to 31; in the principal towns it reached 36 in 1896-1900, and shows little evidence of recession, although in two of them, Glasgow and Dundee, the rates of the last quinquennium are lower than in some of the earlier periods.

It has been suggested that a more rigid observance of the practice of registering the birth and death of infants who survive their birth by a few hours only explains this increase, and it is probable that some part of it at least, especially in the rural districts, is due to this.

Compared with the England and Wales experience in 1910 the rate is lower, and a suggestion that the divergence between urban and rural conditions is greater.

#### MORTALITY FROM WASTING DISEASES UNDER THREE MONTHS PER 1,000 BIRTHS.

1910. England and Wales, 35.39.		Average Rate, 1906-10. Scotland, 34.2.	
Urban Counties.	Rural Counties.	Principal Towns.	Mainland Rural Districts.
36.46	33.42	35.4	30.7

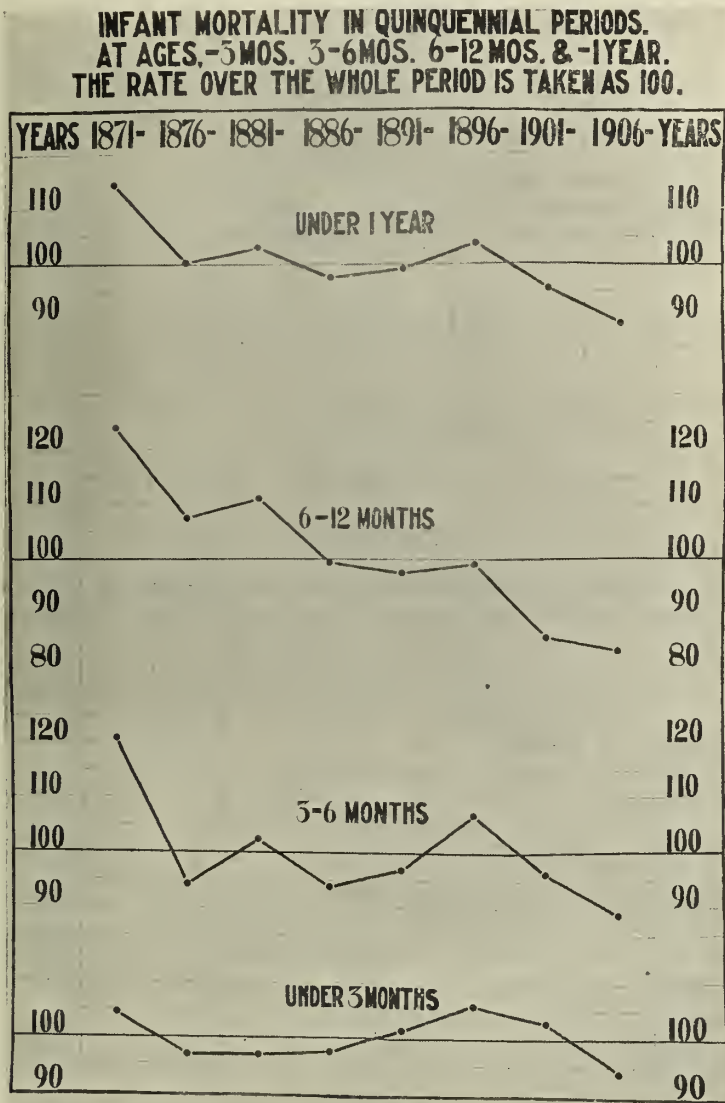


*Deaths under one month in relation to deaths under three months.*

A further analysis of these deaths is necessary, but in Scotland our national returns only state the aggregate number of deaths occurring under three months, and to obtain information for shorter periods one must have recourse to local returns.

For the City of Glasgow these are now available since 1903, and I propose to utilize them for this purpose.

Before doing so a word may be here introduced on the influence of the total rate under one year of the deaths occurring in the several periods into which it is customary to group the deaths. This will be more readily understood by a reference to the accompanying chart of the rates for Glasgow in quinquennial periods during



the last forty years. Mainly it would appear that the character of the curve is determined by the deaths under 6 months. In almost striking contrast to this is the absence of any great degree of correspondence between the curve for 6-12 months and that for the whole of the first year.

The fluctuations in the yearly curve, indeed, would appear to be determined, especially during the last twenty years, mainly by the deaths occurring under 6 months. During the marked rise which occurred in the total rate in the last quinquennium of the 90's decade the rate between 6 and 12 months only increased by 1 per 1,000.

The combined influence of the deaths from respiratory and digestive diseases in these fluctuations need not here detain us, but the inelastic character of the rate from prematurity and wasting diseases in the first three months of life as compared with the movement in the other two groups mentioned is well illustrated by the subjoined figures.

GLASGOW.—DEATHS FROM CERTAIN DISEASES UNDER THREE MONTHS AND DEATH-RATES  
PER 1,000 BIRTHS FOR SEVERAL TRIENNIAL PERIODS.

Years.	Total Births.	Prematurity, Cong. Defects, and Atelectasis.		Atrophy and Debility.		Respiratory Diseases.		Digestive Diseases.	
		Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
1870-2	58,380	2,041	35.0	Not given separately. included in Prem., &c.		526	9.0	541	9.3
			35.0				18.3		
1880-2	57,753	1,063	18.4	851	14.7	551	9.5	489	8.5
			33.1				18.0		
1890-2	61,951	1,315	21.2	946	15.3	639	10.3	512	8.3
			36.5				18.6		
1900-2	73,228	1,716	23.4	1,062	14.5	735	10.0	558	7.6
			37.9				17.6		
1908-10	69,268	1,726	24.9	703	10.1	537	7.8	423	6.1
			35.0				13.9		

THE DISTRIBUTION OF THE DEATH-RATE UNDER THREE MONTHS.—DEATH-RATE PER 1,000 BORN, CALCULATED ON THE DEATHS FROM ALL CAUSES OCCURRING IN EACH OF THE FIRST FOUR WEEKS AND OF THE FIRST THREE MONTHS, GLASGOW, 1909-11.

	WEEKS.				MONTHS.			Total - 3 months.	Total - 1 year.
	- 1	- 2	- 3	- 4	- 1	- 2	- 3		
Males, -	27.15	6.89	6.53	4.74	45.33	14.14	10.38	69.85	142.88
Females, -	22.31	5.03	4.69	3.70	35.77	9.49	8.50	52.76	112.98

Two-thirds of the total deaths under three months occur during the first month.

In the first week the deaths in each sex are four times more numerous than in the second week, and about six times more numerous than in the fourth week.

Moreover, there are appreciable sex differences even at this early period, the tendency to death being greater among males than females from the earliest moment of independent life—a fact which, taken with others, suggests the need, I think, for revising our whole views regarding the causes of the differences in sex mortality in adult life.

THE CAUSES OF DEATH IN EACH OF THE FIRST FOUR WEEKS.

Since 1903 I have published annually an analysis of the causes of deaths among infants in the City of Glasgow, and the following table shows the average rates for the three years ending September, 1912, stated per 1,000 births:—

GLASGOW.—DEATHS FROM SEVERAL CAUSES IN EACH OF THE FIRST FOUR WEEKS AND  
UNDER ONE YEAR PER 1,000 BIRTHS; THREE YEARS:—OCTOBER, 1909—  
SEPTEMBER, 1912.

	Total Births, 65,325.						Deaths under one month, 2,655.						
	Males.						Females.						
	Weeks.					Under one Year.	Weeks.					Under one Year.	
	- 1	- 2	- 3	- 4	0 - 4		- 1	- 2	- 3	- 4	0 - 4		
I. Immaturity, -	22·34	4·22	3·38	2·10	32·03	42·84	18·18	2·77	2·42	1·65	25·84	33·63	
II. Diseases of re- spiratory system, -	·54	·42	1·11	·87	2·95	30·38	·59	·78	·84	·81	3·02	23·04	
III. Diseases of di- gestive system, -	·48	·57	·78	·72	2·56	22·43	·34	·37	·32	·47	1·49	16·63	
IV. Diseases of nervous system, -	·63	·51	·33	·21	1·69	8·88	·53	·34	·25	·19	1·31	8·16	
V. Tuberculous diseases, -	·03	...	·03	·03	·09	6·99	·03	...	...	...	·03	5·48	
VI. Accidents at birth, -	·60	·03	·06	...	·69	·69	·53	·06	...	...	·59	·59	
VII. Infectious diseases, -	·03	·03	·06	·18	·30	15·92	...	·03	·12	·15	·31	13·96	
VIII. Syphilis, -	·06	·12	·21	·15	·54	1·96	·09	·12	·09	·09	·40	1·81	
IX. Suffocation, -	·21	·18	·06	·09	·54	1·26	·19	·12	·09	·03	·44	1·31	
X. Other violence, -	·12	...	...	·03	·15	·63	·06	...	·03	...	·09	·31	
XI. All other causes,	2·11	·81	·51	·36	3·79	10·90	1·77	·44	·53	·31	3·05	8·06	
Rate per 1,000 births,	27·15	6·89	6·53	4·74	45·33	142·88	22·31	5·03	4·69	3·70	35·77	112·98	

The outstanding feature of the analysis is the volume of the diseases ascribed to the various forms of immaturity.

In the first four weeks of life they contribute 32 out of the total death-rate of 45 per 1,000 male births, and 25 out of 36 per 1,000 female births.

The rate for males in the first week alone is 22, but it falls to 4, 3, and 2 in the next three weeks. In females the decline is equally rapid, so that by the fourth week the rate for each sex is only about  $\frac{1}{11}$ th of that which obtained during the first week.

None of the other causes of death in the first month seem to me to have the same significance as those belonging to this group, and it is to the gynæcologist, I think, that we must look for some elucidation of the problems they suggest. Of all the other principal groups of disease which I have quoted, they alone gain more than a relative prevalence during the first month. And I doubt whether even this grouping under the term immaturity represents the full volume of what, for want of a more intimate knowledge of the causes, we can regard at the moment only as physiological misfits. Some of the other causes to which death is attributed in the first week of life must, I think, be accepted with a fair degree of hesitation. This is particularly the case, I think, with regard to some at least of the deaths attributed to disease of the respiratory and digestive organs. Deaths also which are attributed to diseases of the nervous system in this period probably express correctly enough the path by which death is consummated rather than indicate the existence of gross nervous lesion.

In any case, therefore, there seems no reason to assume that the deaths from immaturity are overstated, and it becomes of importance—owing to certain transferences within the sub-groups—to consider what are included within the term.



## THE CONSTITUENTS OF IMMATURITY.

Various terms are in use which are capable of fairly precise definition, although there is some reason for thinking that they are not rigidly adhered to. This is, I think, particularly true of the terms, "premature birth" and "atrophy and debility." Strictly speaking, "premature birth" as a cause of death in children born alive should mean birth before the completion of the ninth month of gestation, whereas death from atrophy and debility should imply the death of a child born at full time, but subsequently undergoing a process of wasting.

In a general way this conception finds expression in the returns of deaths, for while premature birth ceases to be registered as a cause of death about the sixth month of life, deaths from atrophy and debility are registered all through the first year.

But when one follows the deaths ascribed to each sub-group over a period of years, there is evidence of a change which suggests a simple transference of causes from one group to another.

For example, in the ten years during which the causes of death in the several weeks of the first month have been extracted in Glasgow, the variation in the rate from "all causes" during the first month has been fractional only. In the quinquennium 1903-7 it averaged 40·53 per 1,000 births against 41·46 in the quinquennium 1908-12. In these periods the immaturity rate was almost equally immobile, being 30·04 in the first quinquennium and 29·63 in the second. But when the several members of the immaturity group are taken separately and the deaths from premature birth, congenital malformations, and atelectasis compared with those ascribed to atrophy and debility and wasting, the following contrast is presented :—

PROPORTION OF DEATHS IN FIRST MONTH PER 1,000 BIRTHS ASCRIBED TO—

Period.	(1) Premature Birth, Congenital Defects, Atelectasis.	(2) Atrophy and Debility (Wasting).	(3) Together.
1903-7, - -	19·71	10·34	30·05
1908-12, - -	22·09	7·53	29·62
% difference -	+12·1	-27·1	-1·4

The differences here shown are reflected in each week of the first month, and the question is how they are to be interpreted. To my mind the considerable increase in the number of deaths ascribed to prematurity is apparent only, and represents in reality the transference of a considerable number of deaths formerly ascribed to atrophy and debility. The question is of importance, however, and scarcely to be settled by a simple assumption, because if prematurity is to be regarded as increasing at the rate suggested by the first column in the table, it would afford very substantial evidence of racial deterioration, and open up a whole series of questions concerning the causes of disease in the placenta and endometrium.

These may, however, for the moment be held over until we come to consider the question of still-births, more especially because, as I have suggested, the increase is apparent only, and due to transference from one group to another.

But we cannot leave it without suggesting that greater care is required in ascribing the deaths of young children to the proper cause, if only for the purpose of distinguishing between deaths which may be properly ascribed to intra-uterine conditions producing birth short of the full period of gestation and other weakly children born at full time, but either without sufficient vitality to establish an independent life or suffer from early exposure to material surroundings which are inimical to healthy life.

## SEX DIFFERENCES IN THE FIRST FOUR WEEKS.

These may be followed on the table on page 225, and the proportions contributed by the various constituents of immaturity in the total deaths of each week being as follows:—

	MALES.					FEMALES.				
	Weeks.					Weeks.				
	-1	-2	-3	-4	0-4	-1	-2	-3	-4	0-4
Premature birth, -	15.39	2.05	1.60	.96	19.99	13.20	1.62	1.40	.75	16.97
Congenital defects,	2.17	.66	.12	.03	2.98	1.18	.31	.12	.09	1.71
Atelectasis, - -	.75	.09	.06	.03	.93	.59	.03	.06	...	.69
Atrophy and debility, - -	4.03	1.42	1.60	1.08	8.13	3.21	.81	.84	.81	5.67
	22.34	4.22	3.38	2.10	32.03	18.18	2.77	2.42	1.65	25.04
Total rate in each period, - - -	27.15	6.89	6.53	4.74	45.31	22.31	5.05	4.69	3.70	35.73

Already in the first week sex differences become manifest by an excess in the rate of male deaths, the ratios being 124, 152, 140, and 127 male deaths to 100 females in the several weeks.

Chiefly, however, it is the rate during the first week which arrests attention, and before considering this in relation to the surroundings into which the child is born, it is desirable to ask how they are related to still-births.

In the period to which these figures apply, 1909-11, the number of live male births registered was 33,210, and of females 32,115.

This is a ratio of 104 male to every 100 female live-births.

During the same period we had information of 738 still-births of males and 599 of females occurring in the practice of midwives, and the sex ratio among these is 123 male to every 100 female still-births; the ratio between the male and female death-rate from immaturity being 127.

On the relation of illegitimacy to still-births the information I have is not complete.

Among 34,092 legitimate births attended by midwives there occurred 1,250 still-births, or a rate of 3.8 per cent., whereas among 4,551 illegitimate births similarly attended 87, or just less than 2 per cent., were still-born.\*

Over several years the number of still-births known averaged about 4 per cent. of our total births, but this is lower than the rate we know to exist elsewhere. In Brussels, for example, it has been maintained steadily at 6 to 7 per cent. during 43 years (Annual Report for the town of Brussels, for 1911, page 9).

## RELATION OF STILL-BIRTHS TO PREVIOUS MISCARRIAGES AND STILL-BIRTHS.

An inquiry into the previous history of mothers of still-born children was made with the view of ascertaining the history of former miscarriage or still-birth.

\* The Registrar-General (England) refers to the excessive prevalence of syphilis in illegitimate children, and Professor Munro Kerr, of Glasgow University, tells me that a recent inquiry by Dr. Louise M'Ilroy among the patients in the gynæcological wards of the Royal Infirmary shows that 52 per cent. among those who present no external lesions show a Wassermann reaction.

The age-distribution of the mothers of 1,337 still-births inquired into was as follows :—

Age of Mothers.	-20	-25	-30	-35	-40	-45	45+
Number of Still-births, ...	56	252	268	245	238	100	7
Per'cent.,...	5	22	22	21	20	9	1
Per cent. — Age-distribution of mothers of 4,042 live-births,	3.6	22.0	29.6	24.0	15.7	4.8	.3
Per cent. — Age-distribution of Females 15-45, ...	19.2	19.8	35		26		

The proportionate number of still-births at several age-periods of mothers between 20 and 45 is fairly uniform, and on an aggregate form 85 per cent. of the total.

Of over 4,000 live-births, 91 per cent. occurred also between these ages; but the risk of still-births appears to be least when the mother is aged 25-30, and greatest when she is under 20 and over 40, that is towards the beginning and end of the child-bearing period.

#### NUMBER OF PREVIOUS STILL-BIRTHS AND MISCARRIAGES.

Among these 1,337 mothers of still-born children 493 had a history of previous miscarriage or still-birth, 353 had given birth to dead children on some former occasion, 89 had a similar history of miscarriage, while 51 had borne dead children and had also had miscarriages.

In the aggregate these 493 mothers had a past history of 1,051 still-births and 335 miscarriages, which added to the 493 still-births, which were the occasion of the inquiry, represent a total number of 1,544 conceptions (or 3.1 per mother) dying before birth.

#### NUMBER OF PREVIOUS STILL-BIRTHS AND MISCARRIAGES.

Number of Still-births and Miscarriages.	1	2	3	4	5	5 + (say 6)
Number of women having one or more still-births, ...	219	75	36	24	7	18
Number of women having one or more miscarriages, ...	102	48	15	6	4	8
Total still-births, ...	219	150	108	96	35	108 = 716
Total miscarriages, ...	102	96	45	24	20	48 = 335
	321	246	153	120	55	156 = 1,051

In the remaining 844 mothers of still-born children there was no history of previous miscarriage or still-birth, but I am unable to say how many of these were first conceptions.

The fatality which haunts these families is not fully represented in the foregoing, for I find that the 1,337 mothers of still-born children had in the past borne in the aggregate 4,582 living children, of whom 833 or 18.2 per 1,000 births died in their first years, and 1,485 altogether, or 32 per cent., were dead prior to the birth of the still-born child which led to the inquiry.



## EMPLOYMENT OF MOTHERS IN RELATION TO STILL-BIRTHS.

In 4,632 of the total births (including still-births) the mothers were employed within the meaning of the Factory Act, and the proportion of still-births known to have occurred among them was 5·4 per cent., compared with a rate of 3·7 per cent. in mothers not so employed.

Mothers.	Live-births.	Still-births.	Total.	Per cent.
Not working, ...	28,459	1,088	29,547	3·7
Working, ...	4,383	249	4,632	5·4
Total, ...	32,842	1,337	34,179	3·9

Before concluding from these figures that work in the sense here used is more likely to produce a higher rate of still-births than when the mother is not so employed, I would refer to the footnote on page 227, in which the proportion of gynaecological patients who react to the Wassermann test is stated at 52 per cent.

## RELATION TO SOCIAL CONDITIONS.

In seeking an answer to the question whether immaturity in the recently born has any demonstrable association with social environment and the unhealthy conditions of living which we find contributing to the sum of disease in later life, I have selected for comparison certain districts in Glasgow differing widely in their social circumstances. Group A includes two districts inhabited largely by the labourer and casual worker; Group B includes two districts inhabited mainly by artisans, shop assistants, and clerks; and Group C two districts of which the inhabitants are mainly residential.

The total annual population of these combined districts was 153,857, the total births 11,533, and the total infant deaths 1,354. The facts recorded represent the average experience of the three years 1909-12.

The field of observation, therefore, is relatively limited, and any deductions can only be advanced tentatively. This is especially the case because the information regarding still-births is essentially incomplete. So far, however, the information suggests a grading of rates in correspondence with the general death-rate.

The details are contained in the Appendix Tables, but the following summary will illustrate this:—

## AVERAGE RATES FROM IMMATURITY AND SYPHILIS IN THREE GRADES OF DISTRICTS IN FIRST FOUR WEEKS (1909-12).

	Both Sexes.	Males per 1,000 Births.				Females per 1,000 Births.			
		Still-births per cent.	Immaturity.	Syphilis.	Total Infant Mortality under one year.	Average (Immaturity).	Immaturity.	Syphilis.	Total Infant Mortality under one year.
Poor districts, - - -	5·7	48·01	3·97	201	48	36·56	...	146	37
Artisan districts, - -	3·8	30·25	·89	121	30	25·71	·61	89	26
Residential districts, -	2·4	24·76	...	70	25	18·36	...	39	18
City, - - - -	...	32·03	...	143	...	25·04	...	113	...

There is a disparity in the incidence of still-births and immaturity among the infants born of poorer-class mothers in unhealthy surroundings. The varying incidence of syphilis also is noteworthy.

It is necessary to remember that in these as in all kindred inquiries the poor are more easy of access, and their interest in the object of the inquiry more readily awakened than in other social groupings. For this reason the facts regarding them may be quite accurately stated, and yet error result in comparing them with other groups where corresponding information is less complete.

#### LIVE AND STILL-BIRTHS IN RELATION TO ECONOMIC CONDITIONS.

Having noted the house distribution of 1,337 still-births, similar information was taken from the records regarding 3,169 live-births attended by midwives in the first quarter of 1911 as a sample distribution.

	Percentage of Population occupying.	Percentage of Live-Births.	Percentage of Still-Births.
1 Apartment, - -	13.8	39	41
2 Apartments, - -	48.4	55	53
3       ,,       - -	21.1	5	5
4       ,,       and up.	16.7	1	1
Nos. inquired into. -	...	3,169	1,337

Ninety-four per cent. of the live-births take place among 62 per cent. of the population occupying houses of two apartments and under, and 94 per cent. also of the still-births occur there. There is a slightly greater incidence of still-births in one apartment. but the figures are small.

#### HEALTH DURING PREGNANCY OF MOTHERS OF STILL-BORN CHILDREN.

A statement regarding the health of the mothers of still-born children is subject to the explanation that as those which were inquired into (1,337) had all been attended by midwives, the mother's statement regarding her own health is the only available basis of the classification. Fully one-half (57 per cent.) believed they had been in good health during the whole period of gestation, 31 per cent. had been in indifferently fair health, and 12 per cent. had been in sufficiently indifferent health to regard themselves as ill.

Yet there is a suggestion of grading here also corresponding with that of the rate for immaturity, and the conclusion is established, I think, that the causes which lead to prematurity—or as I prefer to call it immaturity—are *ejusdem generis* with those which lead to still-birth in probably a preponderating proportion of the cases.

#### CONCLUSION.

I submit these details for your consideration with some hesitation because of the limited area of the field from which the information has been gleaned. I take courage from the fact that the committee who organized this conjoint meeting would appear to have frankly recognized that the problem could not be answered from one standpoint alone, and more particularly that clinical experience is needed to illustrate statistical detail.

If the figures I have stated should be established on a wider basis, we shall cease to find that phrase of the maker of books—nature and nurture—always used as if the terms represented opposing forces.

Nature is ever the bountiful mother, whose gifts are blighted by the surroundings into which they are born.

In this discussion we must insist on looking at the other side of the shield.

It is here nature and not nurture that is at fault, and the question I submit for the consideration of the meeting is whether the sacrifice of infant life during gestation and in the period immediately following birth is to be regarded as the result of disease in the parent in a considerable proportion of the cases—due on the one hand to infections which are demonstrably present in some of the early deaths or to disordered tissue metabolism of the mother produced by defects in environment and food.

### TABLES.

#### RELATION TO SOCIAL CONDITIONS.

##### GROUP A.—POORER CLASS DISTRICTS.

Ward 12	{	Death-rate— <i>all causes</i> , 21·8.			<i>Infant mortality</i> , 161.
		Population, 6,752.	Housing	{	1 Apartment, 15·9 per cent.
					2 „ 47·3 „
					Together, 63·2 „

##### DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.	Males—Weeks.					Females—Weeks.				
	— 1	— 2	— 3	— 4	0—4	— 1	— 2	— 3	— 4	0—4
Premature birth, ...	20·13	10·07	...	...	30·20	11·81	...	3·94	...	15·75
Congenital defects, ...	...	3·36	...	...	3·36	3·94	3·94	...	...	7·87
Atelectasis, ...	3·36	...	3·36	...	6·71	3·94	...	...	...	3·94
Atrophy and debility, ...	...	...	6·71	3·36	10·07	3·94	...	...	3·94	7·87
Syphilis, ...	23·49	13·43	10·07	3·36	50·34	23·63	3·94	3·94	3·94	35·43
	3·36	3·36	...	...	6·71	...	...	...	...	...

Ward 16	{	Death-rate— <i>all causes</i> , 18·9.			<i>Infant mortality</i> , 146.
		Population, 33,898.	Housing	{	1 Apartment, 24·8 per cent.
					2 „ 47·4 „
					Together, 72·2 „

##### DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.	Males—Weeks.					Females—Weeks.				
	— 1	— 2	— 3	— 4	0—4	— 1	— 2	— 3	— 4	0—4
Premature birth, ...	23·46	2·47	1·85	·62	28·39	18·17	2·69	2·02	1·35	24·23
Congenital defects, ...	1·85	...	...	...	1·85	·67	...	1·35	...	2·02
Atelectasis, ...	·62	·62	...	...	1·23	...	...	...	...	...
Atrophy and debility, ...	4·32	4·32	2·47	3·09	14·20	6·06	2·69	1·35	1·35	11·44
Syphilis, ...	30·25	7·41	4·32	3·71	45·67	24·90	5·38	4·72	2·70	37·69
	...	...	·62	·62	1·23	...	...	...	...	...

##### GROUP B.—ARTISANS. &c.

Ward 17	{	Death-rate— <i>all causes</i> . 14·1.			<i>Infant mortality</i> , 113.
		Population, 41,198.	Housing	{	1 Apartment, 18·5 per cent.
					2 „ 53·0 „



## DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.			Males—Weeks.					Females—Weeks.				
			— 1	— 2	— 3	— 4	0—4	— 1	— 2	— 3	— 4	0—4
Premature birth, ...	...	...	13·03	2·96	1·18	1·18	18·35	15·46	1·29	2·58	·64	19·97
Congenital defects, ...	...	...	2·37	1·18	...	...	3·55	...	...	...	...	...
Atelectasis, ...	...	...	1·18	·59	...	...	1·78	·64	...	...	...	·64
Atrophy and debility, ...	...	...	5·33	2·37	2·37	2·96	13·03	3·22	1·29	...	1·29	5·80
			21·91	7·10	3·55	4·14	36·71	19·32	2·58	2·58	1·93	26·41
Syphilis, ...	...	...	·59	...	...	·59	1·18	...	...	...	...	...

Ward 21 { Death-rate—*all causes*, 13·7.  
Population, 35,082.

		<i>Infant mortality, 94.</i>
Housing	{ 1	Apartment, 13·7 per cent.
	{ 2	„ 56·8 „
		Together, 70·5 „

## DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.			Males—Weeks.					Females—Weeks.				
			— 1	— 2	— 3	— 4	0 — 4	— 1	— 2	— 3	— 4	0 — 4
Premature birth, ...	...	...	8·92	1·78	1·19	...	11·89	15·86	·61	1·22	...	17·69
Congenital defects, ...	...	...	·59	...	...	·59	1·19	·61	...	...	·61	1·22
Atelectasis, ...	...	...	·59	...	...	...	·59	·61	·61	...	...	1·22
Atrophy and debility, ...	...	...	7·73	·59	·59	1·19	10·11	1·83	...	1·22	1·83	4·88
Syphilis, ...	...	...	17·83	2·37	1·78	1·78	23·78	18·91	1·22	2·44	2·44	25·01
			...	...	...	·59	·59	...	...	·61	...	·61

### GROUP C.—RESIDENTIAL.

Ward 23 { Death-rate—*all causes*, 9·7.  
Population, 17,124.

		<i>Infant mortality, 64.</i>
Housing	{ 1	Apartment, 1·2 per cent.
	{ 2	„ 7·3 „
		Together, 8·5 „

## DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.				Males—Weeks.					Females—Weeks.				
				— 1	— 2	— 3	— 4	0— 4	— 1	— 2	— 3	— 4	0— 4
Premature birth, ...	...	...	...	16·74	...	...	...	16·74	14·60	...	...	...	14·60
Congenital defects, ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis, ...	...	...	...	4·18	...	...	...	4·18	...	...	...	...	...
Atrophy and debility, ...	...	...	...	4·18	4·18	...	...	8·37	...	...	3·65	3·65	7·30
Syphilis, ...	...	...	...	25·10	4·18	...	...	29·29	14·60	...	3·65	3·65	21·90

Ward 24 { Death-rate—all causes, 7·9.  
Population, 19,803.

Infant mortality, 40.  
Housing { 1 Apartment, 0·3 per cent.  
2       ,,       3·9       ,,  
          Together, 4·2       ,,

DEATH-RATE PER 1,000 BIRTHS IN FIRST FOUR WEEKS.

Immaturity.	Males—Weeks.					Females—Weeks.				
	— 1	— 2	— 3	— 4	0 — 4	— 1	— 2	— 3	— 4	0 — 4
Premature birth, ... ..	7·59	...	...	...	7·59	7·41	2·47	...	...	9·88
Congenital defects, ... ..	2·53	...	...	...	2·53	2·47	2·47	...	...	4·94
Atelectasis ... ..	2·53	...	...	...	2·53	...	...	...	...	...
Atrophy and debility, ... ..	5·06	...	2·53	...	7·59	...	...	...	...	...
Syphilis, ... ..	17·71	...	2·53	...	20·24	9·88	4·94	...	...	14·82

APPENDIX IV.  
THE INCREASE OF DIPHTHERIA IN SCOTLAND IN  
RECENT YEARS.\*

I have selected the recent increased prevalence of diphtheria in Scotland as a subject for your consideration for several reasons, some of which I propose shortly to outline.

In the first place it constitutes the first prolonged interruption to the descent in the slope of the death-rate which has occurred at varying rates since the epidemic of 1862-4. It has occurred after half a century of what may be called intensive sanitary administration, and during a decade when the hospital isolation of recognised cases is being practised to an extent formerly unequalled. Its main incidence is now, moreover, on the larger burghs, as contrasted with its former predilection for rural areas.

It affords an opportunity of comparing the extent of its prevalence, as disclosed by notification on the one hand, and as suggested by the death-rate on the other, for the latter continued to fall during the first three years of increasing prevalence, while the notified cases increased from over 4,000 annually during the years 1901-5 to over 6,000 in the years 1906-8, and exceeded 9,000 in each of the years 1911-12. This increase in the number of cases so greatly exceeds the increase in the number of deaths that it may be held as suggesting a marked accentuation in the infecting power of the organism of the disease, accompanied by only a moderate increase in its virulence. The morbidity rate appears to support this view, for while in the years 1900-1-2 the deaths per 100 cases fell from 24·3 to 18·5, in 1903-4-5 they averaged 15, and in 1911 only 9·5.

Here, however, a third element of importance requires to be considered, viz., a change in the age-distribution of attacks which has accompanied the increasing prevalence we are considering.

Not the least striking feature of the decline in the death-rate from diphtheria and croup (I have taken them both together) during the last half-century has been the decrease in the death-rate at ages under 5.

SCOTLAND.—DIPHTHERIA AND CROUP DEATH-RATE PER 10,000 LIVING AT  
SEVERAL AGE PERIODS DURING 50 YEARS.

AGES.	1860-2.	1870-2.	1880-2.	1890-2.	1900-2.	1909-11.
— 5	33·3	31·5	25·7	22·3	12·2	11·9
— 10	7·9	7·5	6·6	6·4	3·3	4·5
— 15	1·8	1·1	1·2	1·0	·7	·8
15 +	·4	·3	·2	·2	·1	·1
All Ages, - -	5·9	5·5	4·6	3·8	2·0	2·0

Obviously any transference of attacks to ages of low fatality would result in a further lowering of the death-rate, and this change is precisely what has occurred. Whether we approach the question of age-distribution from a consideration of the attack-rate or of the death-rate the conclusion is the same.

During the period of declining prevalence the proportion of deaths at the several age-periods underwent little change, but the increasing prevalence which began in the middle of last decade was associated with an increasing invasion of the age-period 5-15, which it reflected both in the proportion of cases and deaths.

\* Paper read at the Congress of the Royal Institute of Public Health,  
Edinburgh, July, 1914.



To illustrate the change in the proportion of deaths at these ages I introduce a Table showing the change in Scotland, as a whole, at each Census period since 1861.

SCOTLAND.—TABLE "A."—TOTAL DEATHS FROM DIPHTHERIA AND CROUP  
AT SEVERAL AGE-PERIODS.

	AGES.	1860-2.	1870-2.	1880-2.	1890-2.	1900-2.	1909-11.
Total, ... ..	All Ages.	5,449	5,527	5,121	4,559	2,626	2,787
Percentage at each age, ... ..	- 5	76.6	77.8	76.9	73.7	74.1	68.2
	- 10	15.8	16.4	17.5	20.0	18.6	25.1
	- 15	3.1	2.3	2.7	3.1	3.5	4.0
	15 +	4.5	3.5	2.9	3.2	3.6	2.7

The most striking changes here are in the period 1909-11, where something like 6 per cent. of the deaths were transferred from ages under 5 to ages 5-10.

Over the whole period it might be suggested that the fall in the proportion of deaths under 5 was the result of the decrease in the proportion living at these ages. In 1861 the proportion of children under 5 years in the total population was 15 per cent. for boys and 13 per cent. for girls. In 1911 it was barely 12 per cent. and 11 per cent., while at ages 5-10 the proportions were likewise reduced, although to smaller extent. We shall largely avoid this source of fallacy by considering the change in the age-incidence of cases during the last decade, and for this purpose I take the Glasgow figures as being more readily accessible.

GLASGOW—TABLE "B."—NOTIFICATIONS—DIPHTHERIA AND CROUP—  
1903-12, AT CERTAIN AGE-PERIODS.

Age-Periods.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
All Ages,	724	647	723	1,270	1,218	1,274	1,846	1,939	1,897	1,735
- 5	53.8	50.4	51.0	43.3	41.6	47.3	44.2	42.9	41.2	42.7
- 10	20.4	22.4	25.3	31.8	29.6	30.8	31.3	30.9	33.8	31.4
- 15	6.5	7.0	7.2	9.4	10.1	7.8	9.4	11.4	11.0	10.6
15 +	19.3	20.2	16.5	15.5	18.7	14.1	15.1	14.8	14.0	15.3

The changed age-incidence, which began here in the year 1906, is, I think, significant, because it has been maintained in each of the subsequent years, and raises questions which concern age-immunity on the one hand, and the acquisition of a greater infecting power of the organism on the other. With the increasing prevalence there has been a relatively greater invasion of the age-period.

The "infectious diseases of childhood" is a convenient phrase whereby to express the increasing immunity to these diseases which individuals acquire on passing through childhood to maturity. Here, however, we have illustration of the spread of an epidemic associated with an alteration in the age-incidence of attack, and selecting not an earlier, but a later age-period. It may be that a new page has been opened in the natural history of disease.

The conception that the infectious diseases of mankind occur mainly as the result of environment has inspired much of the work which has been undertaken for their prevention. The application of the principle has reclaimed many waste places of the globe, and the completion of the Panama Canal is its latest illustration. But there are many illustrations that other factors are also in operation. Measles and whooping-cough are among the most homely. Whatever may be claimed by sanitary effort as contributing to a reduction in their mortality, there is little evidence that they are less prevalent. Prevalence and virulence, indeed, are two distinct elements in the problem, and the one is by no means a constant measure of the other. The continued decline in the mortality rate of scarlet fever during the last generation fails to give any indication of its cyclical recurrences. Enteric fever, on the other hand, has steadily declined both in prevalence and mortality, but its fatality-rate remains high.

Indeed, the common practice of promiscuously grouping under the common term "infectious diseases," all those which are transmissible tends to obscure under the one feature which they most obviously have in common—*i.e.*, their infectivity—the more important of the features by which they differ from each other, and to discount the essential characters in the natural history of each. To some extent this is the inevitable outcome of concentrating attention on the first reliable information made available by the registration of deaths, but one need only contrast the curve of prevalence as disclosed by the notification of any disease with its recorded death-rate to discover reason for believing that preventive effort in the future must regard with equal importance information obtained from both sources.

To regard fluctuations in prevalence as illustrating changes in the life-history of the disease organism, and mortality as expressing the accident of its manifestation in surroundings unfavourable to the person attacked, is at least a working hypothesis, which is suggested by the contrasts I have indicated.

SCOTLAND.—DIPHTHERIA AND MEMBRANOUS CROUP CASES AND RATES IN LANDWARD BURGHAL AREAS (LOCAL GOVERNMENT BOARD (SCOTLAND) REPORTS) AT TWO CENSUS YEARS.

Year.	Area.	Population.	Cases.	Diphtheria Case-Rate per Million.	Index No.
1901	Landward	1,545,254	1,173	759	100
	Burghal	2,926,849	2,962	1,012	100
		<u>4,472,103</u>	<u>4,135</u>	<u>924</u>	<u>100</u>

878 deaths = 196 per million of population.

Case-Rate =       "       "       "

1911	Landward	1,614,114	2,699	1,672	220
	Burghal	3,139,196	7,141	2,274	224
		<u>4,753,310</u>	<u>9,840</u>	<u>2,070</u>	<u>224</u>

931 deaths = 196 per million of population.

Case-Rate =       "       "       "

From Registrar-General, 1911.	Population.	Deaths.	Death-rate per Million.
County Districts, ... ..	1,617,203	278	172
Larger Burghs. ... ..	3,133,729	653	208
	<u>4,750,932</u>	<u>931</u>	<u>380</u>

## APPENDIX V.

REPORT BY THE TREASURER, THE MEDICAL OFFICER OF HEALTH,  
AND TOWN-CLERK AS TO TREATMENT OF TUBERCULOSIS.

"TO THE MEMBERS OF THE

SUB-COMMITTEE ON THE PREVENTION OF TUBERCULOSIS.

GENTLEMEN,

By minute of the Sub-Committee on Prevention of Tuberculosis, of date 9th May, 1913, it was remitted to us to report on the financial and other provisions of the Public Health (Scotland) Act, 1897, and the National Insurance Act, 1911, so far as relating to the treatment of tuberculosis.

## (a) LEGISLATIVE PROVISIONS.

(1) *General*.—Pulmonary tuberculosis has been declared to be a disease *ejusdem generis* with those which are included under the Infectious Disease (Notification) Act, and is notifiable throughout Scotland under regulations issued by the Local Government Board in pursuance of the powers conferred on them by Section 78 of the Public Health (Scotland) Act, 1897. It is understood that the issue of similar regulations applicable to all forms of tuberculosis is under contemplation.

Such powers as the Public Health Act confers on Local Authorities for dealing with infectious disease generally are made applicable to pulmonary tuberculosis. Under these, "Any Local Authority may and, if required by the Board, shall provide, furnish, and maintain for the use of the inhabitants of their district suffering from infectious disease, hospitals, temporary or permanent, and houses of reception for convalescents from infectious diseases, or for persons who have been exposed to infection, and for that purpose may—

- (a) Themselves build such hospitals or houses, or
- (b) Contract for the use of any such hospital, or house, or part thereof;
- (c) Enter into any agreement with any person having the management of any such hospital, or house, or part thereof, on payment of such annual or other sum, as may be agreed on;
- (d) Any Local Authority, with consent of the Board, may also, or in place of providing such hospitals or houses, as aforesaid, employ nurses to attend the persons suffering from infectious disease in their own homes, and also supply medicine and medical attendance for such sick."

The Corporation have availed themselves of the powers conferred on them under the heads (a) and (d). These powers, in the opinion of the Board, authorise the provision not only of hospitals proper, but also of sanatoria, country homes, dispensaries, &c.

While, therefore, authority for providing places for institutional treatment would appear to be ample, it falls to be noted that Local Authorities are only authorised to supply medicines to persons undergoing domiciliary treatment, there being apparently no power enabling them to contribute towards the maintenance of a patient in his own home. If relief in this form is required, it is the function of the Parish Council to provide it.



The persons for whom hospital, including sanatorium, &c., accommodation may be provided are described in Section 54 of the Public Health Act, as follows:—

“ A person suffering from any infectious disease who is without proper lodging or accommodation, or is so lodged that proper precautions cannot be taken for preventing the spread of the disease, or is lodged in a tent or van, or in a room occupied by others besides those necessarily in attendance on such person, or is on board a ship, may, on a certificate signed by the Medical Officer or other legally qualified medical practitioner, and with the consent of the superintending body of the hospital to which he is to be removed, be removed by order of a Sheriff, Magistrate, or Justice on the application and at the cost of the Local Authority of the district where such person is found, to any hospital in or within a convenient distance of such district, or, in the case of a combination, as hereinafter provided, in or within a convenient distance of the combined district, or the Sheriff, Magistrate, or Justice may direct the removal from the room or house occupied by such person, of all others not in attendance on him, the Local Authority providing suitable accommodation for such person or persons; and such person may be detained in such hospital so long as he continues in an infected condition, provided always that no such order shall be necessary where the removal is carried out with the consent of the patient or his parent or guardian.”

Shortly, therefore, the persons to be accommodated are such as are—

- (1) Without proper lodging or accommodation;
- (2) Lodged where precautions cannot be taken against the spread of disease;
- (3) Lodged in a tent or caravan;
- (4) Lodged in a room occupied by others; and
- (5) On board ship.

In order to provide hospitals, &c., the Corporation are authorised to borrow money on the security of the Public Health Assessment, and money borrowed for this purpose requires to be repaid in thirty years; on the other hand, the expenses of treatment, &c., form an annual charge against the Public Health Rate.

(2) *Under the Insurance Act.*—The provisions of the National Insurance Act, 1911, so far as affecting the Corporation, are mainly financial. Under Section 64 thereof, together with Section 16 (1) of the Finance Act, 1911, a sum of £1,500,000 has been provided by Parliament to assist in building hospitals, sanatoria, &c., for the treatment of tuberculosis throughout the United Kingdom. The allocation of the proportion of this sum effecting to Scotland, and amounting to £157,919, is in the hands of the Local Government Board acting in conjunction with the Scottish Insurance Commissioners. In a circular issued by the Local Government Board, on 10th April, 1913, they state that they will be prepared to distribute this as follows:—

- (a) In respect of sanatoria and tuberculosis hospitals erected since the passing of the National Insurance Act, grants will be made up to £90 per bed.
- (b) In respect of additions provided since the passing of the National Insurance Act at existing sanatoria and hospitals, grants will be made up to £50 per bed.
- (c) In respect of provision of tuberculosis dispensaries since the passing of the Insurance Act, grants will be made up to £1 per 750 of the population, or an average of £240 per dispensary.

It is stated in the Local Government Board circular just referred to, that no grant will be given until the Local Authority has submitted to the Board a complete scheme for the treatment of tuberculosis in their area, but there seems to be no warrant in the Act itself for attaching such a limitation to the distribution of the money provided.

A complete scheme for Glasgow, comprising the dispensary and institutional units, has been forwarded to the Local Government Board, and is waiting approval.

## (b) FINANCIAL PROVISIONS.

With regard to the cost of treatment of cases of tuberculosis, the National Insurance Act requires Insurance Committees to make arrangements for the treatment of insured persons, and empowers them to extend their arrangements to include also the dependants of insured persons.

Under the Act, a sum of 1s. 3d. per insured person was provided against sanatorium benefit, and to this was added a penny from the Treasury, which might be, and as a matter of fact is being devoted to research purposes. Subsequently, however, 6d. was deducted from the 1s. 3d., and ear-marked for domiciliary treatment by the panel doctors. Out of the remainder of 9d. per head, the Glasgow Burgh Insurance Committee came under an obligation to pay to the Corporation a sum of 25s. per week for insured persons treated in hospital, and propose to pay one-third of the total expenditure, estimated at £9,000 annually, incurred by the Local Authority in providing dispensary treatment.

It has since been ascertained, however, that the charge of 25s. is insufficient to cover the cost of treatment in hospital, and on 25th June, 1913, it was resolved to increase this charge to 30s. The increased charge came into effect on 1st ultimo. Moreover, the estimate that one-third of the persons suffering from phthisis would be insured persons, which was the basis of the foregoing arrangement for dispensary treatment, has been found to be less than the proportion actually occurring, which is nearer two-fifths, as is shown by the following numbers under treatment at 31st August last:—

Insured,	...	...	...	...	...	...	1,379
Dependants of insured,	...	...	...	...	...	...	1,327
Non-insured,	...	...	...	...	...	...	663
Not known—mostly Poor Law,	...	...	...	...	...	...	53
							<hr/>
							3,422
							<hr/>

*Extension of Sanatorium Benefit to Dependants.*

The Insurance Act further provides that, where the Insurance Committee resolves to extend sanatorium benefit to the dependants of insured persons, any excess of expenditure over the amount available for sanatorium benefit may be met one half by the Local Authority and the other half by the Treasury.

In Glasgow, the Burgh Insurance Committee has not yet extended this benefit to the dependants of insured persons, and, in view of the terms of the Board's circular, of 11th August last, relating to financial provisions, it would appear undesirable that this should be done. This, however, is further dealt with in a subsequent section of the report.

*Provision for Non-insured Persons.*

In accordance with the terms of a letter from the Chancellor of the Exchequer to Mr. Henry Hobhouse, of 31st July, 1912, it is proposed to extend financial assistance from the Treasury to schemes which provide not only for the treatment of insured persons and their dependants, but also for the treatment of non-insured persons. Where, therefore, a Local Authority's scheme is applicable to the whole population within its area, a grant from the Treasury is promised, which is assumed to be equal to one-half of the net cost of the scheme after deducting the receipts from the Insurance Committee in respect of the treatment of the insured persons.

## (c) ADMINISTRATIVE.

Having in the foregoing sections outlined the legislative and financial provisions of the Act bearing on tuberculosis, it remains to consider their administrative bearing.

As has been stated, the function of an Insurance Committee is to provide treatment for insured persons, and for this purpose they may arrange with persons and Local Authorities other than those of the Poor Law—Section 16 (1).

In accordance with these provisions, the Glasgow Burgh Insurance Committee has arranged for the use of beds in several institutions, in addition to the hospitals of the Local Authority. The following statement indicates the number of beds occupied by insured persons at date 19th September, 1913:—

	Males.	Females.
Ruchill, ... ..	38	11
Knightswood, ... ..	10	6
Shieldhall, ... ..	8	5
Bellefield, ... ..	42	—
Bridge of Weir, ... ..	15	31
Coppin's Green, ... ..	25	—
Consumption Hospital, Dunblane, ... ..	4	4
Lanfne Home, ... ..	8	5
Broomhill Home, ... ..	1	1
	<hr/> 151	<hr/> 63 — 214

It should be noted—

(1) That the definition of sanatorium benefit renders the Insurance Committee responsible for providing treatment for tuberculosis generally, and is not restricted to pulmonary tuberculosis only, and

(2) That an insured person is not entitled to sanatorium benefit unless the Insurance Committee recommends him therefor (Section 16 (3)).

*Insufficiency of Amount Available for Sanatorium Benefit.*

It has already been stated that the balance available for non-domiciliary treatment has become reduced to 9d. per insured person, and the inadequacy of this to meet the needs of the Insurance Committee in any one year will be evident from the following approximate statement:—

Number of insured persons in Greater Glasgow, April, 1913, ...	362,448
Estimated number of phthisis cases among the insured population, ...	1,370*
Total sum provided for sanatorium benefit, at	
1s. 3d. per head, ... ..	£22,653 0 0
Sum to be deducted at 6d. per head of insured persons in respect of domiciliary treatment by panel doctors, ... ..	9,061 0 0
Leaving, for cost of treatment in institutions and at dispensaries, ... ..	£13,592 0 0

We have thus a total sum of £13,592 to be distributed over the 1,370 insured persons estimated to be suffering from the disease, or almost £9 18s. 6d. per head. From the total, however, there falls to be deducted £3,000, representing one-third of the estimated cost of dispensaries, which leaves £10,500, or about £7 13s. 3d. per head for treatment of insured persons suffering from phthisis in an institution. This is only equal to five weeks' treatment, or less than half the duration of treatment found to be necessary.

\* This estimate was based on the 1911 experience of cases aged 16 and upwards. The actual number of insured persons known to be suffering from phthisis at 31st August, 1913, was 1,379.



It is thus evident that the money at the disposal of the Insurance Committee will be considerably short of their requirements, even for insured persons, as the following estimate, based on past experience, of the cost of treatment in institutions illustrates :—

Sum available for providing institutional treatment for the insured.	£10,500 0 0
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\* Average duration of treatment in sanatoria and hospitals, 11½ weeks.

Cost per patient, at 30s. per week.	17 15 4
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On this basis the sum available (£10,500) would provide for 591 patients per annum, but the estimated annual number of insured patients is 1,370 per annum.

The Insurance Committee are thus able to provide institutional treatment for rather less than one-half the total estimated number of patients who have claims upon them, so that the provision of the Act, which enables them to extend sanatorium benefit to dependants, lacks substantial justification in their inability to pay any portion of the cost arising therefrom.

*Position of the Local Authority in relation to the provisions of the Insurance Act.*

It was urged upon the Government that schemes for the treatment of tuberculosis should be available for the whole community, and should be undertaken and organised by Local Authorities, and that the provisions which the Act contains for providing financial assistance from the Treasury when sanatorium benefit is extended to dependants should be augmented and made available to Local Authorities when they undertake to provide for non-insured persons.

The suggestion was adopted by the Government, in terms which are contained in the following extract from the letter already referred to from the Chancellor of the Exchequer, addressed to Mr. H. Hobhouse on 31st July, 1912 :—

“ This extension involves additional outlay, and, in view of this, the Government have decided to place at the disposal of the Local Government Boards of the three Kingdoms, annually, a sum of money which will represent, approximately, half the total estimated cost of treating the non-insured persons, as well as the dependants of insured persons. This money will be distributed by the Local Government Boards, in pursuance of regulations to be made by those Departments to Local Authorities which undertake schemes to be approved by the Departments for the general treatment of tuberculosis in their areas; and provision will be made accordingly for these grants in the estimates of the three departments.

“ As regards the cost of treating insured persons, the sum already provided under the Insurance Act, which, as I have already stated, is about one million pounds, can only pass to Local Authorities in pursuance of agreements made between them and Insurance Committees; but I have no doubt that Insurance Committees generally will be anxious to deal with the Local Authorities of their area, and the Association may rest assured that the Government will do all in their power to secure this.”

The obvious assumption in this letter is that Local Authorities should provide treatment for all tuberculous patients in their area, and administer the finance thereof with such help as may be obtained in the first case from the balance of sanatorium benefit, provided for insured persons under the Insurance Act, and in the second from the Treasury grant in aid of the treatment of dependants of insured persons and of persons who are not insured.

In further explanation of this financial arrangement a circular (Tuberculosis-Maintenance Grant) was issued by the Local Government Board on 11th August, 1913, in which it is pointed out—

“ In connection with Insurance Committees and Local Authorities' arrangements under the National Insurance Act, and under the letter, dated 31st July, 1912, by the Chancellor of the Exchequer to Mr. H. Hobhouse were as follows :—

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\* This and the cost per head of those treated in institutions is based on the actual number treated to a termination between 15th July, 1912, and the present date.

(a) Under Section 17 (1) of the National Insurance Act an Insurance Committee may extend sanatorium benefit to dependants or any class of dependants of the insured, and where the County Council or Town Council and the Treasury sanction the estimated expenditure, one half of the excess of expenditure over the funds available for sanatorium benefit will be paid out of the rates and the other half out of the grant (Section 17 (3)). *In this case the grant will be paid to the Insurance Committee.*

For the remainder of the population—that is, the population other than the insured and dependants of insured—the responsibility for treatment will rest with the Public Health Local Authority, who will receive payment out of the grant to the extent of one-half of their expenditure on tuberculosis incurred under schemes approved of by the Board.

(b) If the County Council or Town Council decline to sanction the estimated expenditure of the Insurance Committee, and if for this or any other reason the Insurance Committee's arrangements do not include treatment of all insured persons and dependants, the responsibility for treating such persons and dependants as are not included in the committee's arrangements, as well as the remainder of the population, would fall on the Public Health Local Authority, and one-half of the cost would be met out of the grant."

\* \* \* \* \*

It is clear that any estimated deficit in meeting the claims of insured persons, such as is certain to occur, must be considered along with that arising from the extension of benefit to dependants.

The Local Authority appear, therefore, to have two alternatives—

(a) To agree to an estimated expenditure by the Insurance Committee, which must include their deficit in providing for insured persons, and also their estimated deficit in providing for dependants, *in which case the grant will be paid to and administered by that committee*; or

(b) To decline to sanction the estimated expenditure, and retain the responsibility for treating directly the dependants of insured persons together with the non-insured portion of the population. In this case one-half of the cost, after deducting the sum available for sanatorium benefit for insured persons, would be met out of the grant.

The revenue from the Treasury in aid of the treatment of all who are not insured to some extent, therefore, tends to make obsolete the provision in Section 17 of the Insurance Act, which enables the Insurance Committees to extend under conditions sanatorium benefit to dependants of insured persons. It implies, as is administratively right, that a Local Authority should direct the whole movement for dealing with the disease.

If the duty, therefore, of providing treatment for dependants of insured persons be undertaken by the Insurance Committee, the responsibility of treating directly the non-insured would alone fall on the Public Health Authority. The relative responsibilities of the two Authorities for the treatment of tuberculosis would then be distributed in something like the following proportions:—

RELATIONSHIP TO INSURANCE OF THE TOTAL CASES IN GLASGOW,  
AT 31ST AUGUST, 1913.

Insured, - - - - -	1,379	
Dependants, - - - - -	1,327	
	2,706	
Non-insured, - - - - -	663	
Not known—mostly Poor Law, - - - - -	53	
	716	
	3,422	

That is to say, in the case of four-fifths of the total patients suffering from pulmonary tuberculosis and an almost certainly larger proportion of those suffering from tuberculosis in other forms, the decision to treat any particular case in a particular way, and for a given period, would be transferred from the Public Health Authority to the Insurance Committee, who would, under the Insurance Act, have power to control admissions and dismissals from institutions, as well as the form and duration of treatment generally.

There might be some advantage in this arrangement were the Insurance Committee in a better position to negotiate with outside institutions for the treatment of tuberculosis, or better able to continue arrangements so made; but the Public Health Authority possesses this power under the Public Health (Scotland) Act, 1897, Section 66.

Further, to extend sanatorium benefit to dependants at the present juncture would embarrass administration. It would open up claims for treatment on behalf of the great mass of tuberculous children in the city, which could only be met with difficulty, and would entail an expenditure on surgical tuberculosis which could not be at present estimated.

The Corporation have in preparation a scheme adequate to the needs of the whole population—so far as tuberculosis of the lungs is concerned—controlled by the Public Health Authority. It would seem superfluous to interpose another body, responsible for four-fifths of the patients, between the Public Health Authority and those whose treatment is to be undertaken directly as a public health measure under that scheme. The former alternative would make for administrative unity, the latter would introduce a dual control, which does not seem likely to yield any administrative advantage.

We are, GENTLEMEN,

Your obedient Servants,

JAS. D. BORTHWICK,  
*Treasurer.*

A. K. CHALMERS,  
*Medical Officer of Health.*

J. LINDSAY,  
*Town-Clerk.*

Glasgow, 4th October, 1913."



## APPENDIX VI.

“ RISKS OF SMALLPOX IN VIEW OF THE DECLINING VACCINATION  
RETURNS OF THIS COUNTRY.”\*

A short summary of the present position in this country might be put in the following way :—

(1) For reasons which are perfectly well known and widely appreciated by Local Authorities, the protection afforded to the population in the past through the operation of infantile vaccination is becoming yearly less efficient owing to the advantage which is being taken of the conscientious objection clause, and the relaxed vigilance of the authorities responsible for infantile vaccination in consequence. An appeal to the most recent returns will sufficiently establish the facts, quite independently of any view as to how they have been arrived at.

(2) The increasing speed of travel which is ever extending the distance which the passenger may cover during the 12 or 14 days which represent the incubation period of the disease. All the Near East and the principal ports of Egypt proper come within this area, but probably more important are the ports on the Eastern seaboard of America, including mainly the United States and Canada. Intercourse between these places and this country is so common that it almost ceases to attract attention, and yet one has only to peruse such documents as the Weekly Reports of the United States Public Health Service to discover in how many places, within 14 days' distance of this country, the disease is present. While this may be taken to represent the area from which danger may reach us, an inquiry into the means of protection existing at home is not reassuring. Is anyone at the present time in a position to state what actual hospital provision against smallpox exists? Time and again one has heard that beds originally intended for smallpox are now utilised for consumption, and Dr. Seaton, late Medical Officer of Surrey, has placed sufficient emphasis on this to make it worthy of attention. If one further asks to what extent the country is losing protection through its lack of vaccination, there is ample material in both general and local returns for misgiving. In the Forty-first Annual Report of the Local Government Board for England (1911-12) I find, for example, on page 39, that of the children appearing in the Vaccination Officers' Returns, 61 per cent. were successfully vaccinated in 1898. This rose under the stimulus of concurrent smallpox to nearly 76 per cent. in 1905, but in 1910 it fell to 56 per cent. The return on Table No. 34 (page 161, Appendix) of the same report is even more emphatic, as it gives the ratio of successful primary “ public ” vaccinations to births. Here the increase in 1905 rose to 54 per cent., but the fall in 1911 was to 39 per cent. These latter refer entirely to vaccinations performed by public vaccinators. In Scotland the tale is somewhat similar. In 1900 the number of successfully vaccinated children among the surviving births in that year was 94 per cent. In 1906 it was still 91 per cent.; but in 1909 it had fallen to 71 per cent. The experience of Glasgow may be told in the following paragraph from my report for 1912 :—

“ Until 1907 the percentage of successfully vaccinated children remained fairly constant. The average was about 84 per cent. This percentage has rapidly decreased, so that in 1910 it was less than 65, the difference being mainly due to the increase in the proportion of declarations of statutory objection to vaccination, which in that year reached 16 per cent. Those appearing under the heading “ removed from district, or otherwise unaccounted for,” show an increase during the last four or five years, and indicate the existence of a degree of laxity regarding vaccination which extends beyond those who take the trouble to make a formal declaration of conscientious objection.”

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\* Paper read at the Annual Meeting of the Association of Port Sanitary Authorities, January, 1914.

The local records of Glasgow may also be used to illustrate the danger of importing the disease. Glasgow is directly associated with the Canadian traffic during the summer months, when the St. Lawrence is open to shipping, the vessels arriving from Montreal average about two per week.

During the period between 15th June and the end of October, 1913, 48 ships, with crews numbering 9,173 and passengers 1,354, arrived in the Port of Glasgow from Canadian ports. The time taken to complete the journey is usually eight or ten days, so that when smallpox is endemic in Montreal, as it has been during many months of the past year, many who must be regarded as likely to have been in contact with smallpox disembark, and must be kept under observation over the remaining days of the incubation period.

Of the total number of the crews above stated, the addresses given by 1,439 were without the City boundary, as were also 1,086 of the passengers, or respectively 16 and 80 per cent., while the number of addresses given wrongly (crew 87, and passengers 14) was equal in each case to fully 1 per cent. of the number whose home addresses were given as within the City. From the numbers given above there are, on the average, about 400 arrivals per week who require supervision.

The passengers in many cases are tourists, and remain in Glasgow for a day or two before proceeding to various places throughout the country, so that it will be readily seen there is considerable danger of the disease being imported without detection, especially when the attack is mild.

To some extent these defects could be met by issuing to each person leaving ship a note instructing him to call on the Medical Officer of the district to which he proceeds, in default of which a penalty should be imposed.

The action taken by the Port of London Sanitary Authority last year, and related in the "Medical Officer" of 4th of October last, is so apposite that it may here be quoted:—

"The Committee note that there are many vessels arriving in the Port of London within fourteen days of their departure from ports at which smallpox is known to exist. It is possible that there may be persons on board who are incubating the disease, but who have as yet shown no signs or symptoms of smallpox. Such persons, if members of the crew, usually are paid off and land in London, where they are lost trace of, and, should they develop this disease, would form foci, which might constitute the starting points of a serious epidemic of smallpox. The committee are informed by the Medical Officer of Health that he has no powers to deal with these vessels should they arrive with no sickness on board, unless they have come from, or touched at, ports infected with plague, yellow fever, or cholera. Having regard to the fact that there is a large and increasing number of persons in this country unprotected by vaccination or revaccination, they think that powers should be given to Port Sanitary Authorities to visit and inspect all persons on board ships arriving from ports at which smallpox is known or suspected to exist, and situated within fourteen days' steaming of ports in this country; that all persons on these vessels should be required to give their names and addresses; that they should be detained on board in cases where the addresses given are unsatisfactory; and that a penalty should be imposed on such persons similar to that contained in the Local Government Board Order relating to plague, yellow fever, and cholera."

On August 29th the Local Government Board replied as under:—

"The Board have carefully considered this proposal, both in regard to the administrative measures which would be needed to give effect to them, and to the question of international arrangements which would be involved; but they do not consider, on the evidence before them, that they would be justified in adopting the course suggested."

The Committee's comment on the reply is as follows :—

“ The decision of the Local Government Board is to be regretted, as, in the opinion of this Committee, a serious loophole exists by which it is possible for smallpox to be introduced into this country.”

Notwithstanding the adverse opinion here expressed by the Local Government Board, it is for the Port Sanitary Authorities Association to consider whether public opinion will accept this as exonerating from blame the particular Port Authority through which our present defective methods allow a case to slip, should a widespread outbreak of disease in this country follow.

My opinion is that the Association should supplement the action taken last year by the Port of London, and represent to the Board—

- (1) That in the opinion of the Association the improved sanitary administration of the country is not adequate nor fitted to counteract the increased risk of smallpox arising from neglect of vaccination at home and the increased rapidity of communication with oversea ports; and
- (2) That the divergence of what must be a considerable proportion of beds formerly available for smallpox to other purposes adds another element of risk.

Sanitary Chambers,  
Glasgow, 26th January, 1914.





